

Not Yet 25

IIMA in Louis Kahn's Designs and Pranalal Patel's Images



Text: Vijaya Sherry Chand

Photographs: From the Pranalal Patel Collection, IIMA Archives

IIMA Archives Monograph Series

IIMA ARCHIVES

INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD

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Front cover photo: Corridor outside the ground floor of Vikram Sarabhai Library, Louis Kahn Plaza to the left; see Photo 26 for a view from the other end of the corridor (IIMA Archives)

Back cover photo: The reading room of Vikram Sarabhai Library (Author)

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Preface

This monograph tells one of the many stories possible about the early development of the Indian Institute of Management Ahmedabad (IIMA) campus. The story is told through the designs of Louis I. Kahn, who was assisted by Balkrishna V. Doshi and Anant D. Raje, and the photographs that Pranalal Patel, the renowned Ahmedabad-based photographer took between 1967 and 1985. This period, roughly within the first 25 years of the institute's history, provides the title of this monograph, *Not Yet 25*. Patel was a frequent visitor to the campus, photographing it as the early buildings came up. In early 2021, the IIMA Archives obtained about 200 of his photographs. In November 2022, the IIMA Archives held an exhibition of 60 of these photographs, *Not Yet 25: IIMA through Pranalal Patel's Lens*. These are the photographs used to tell the early story of the campus here. Each of the 60 images has a background to it, and offers one a glimpse of the thought that went into building the campus and the challenges that had to be overcome. What does a photograph of a lawn under preparation tell us about the landscaping that the architects wanted? What is missing in a photograph of the outer row of student dormitories?¹ (The answer: A lake and the reflections of the dormitories in the water.) Why is the iconic Louis Kahn Plaza closed on three sides and open on the fourth side? The answers to such questions allow us to appreciate the uncertain trajectories of institution building better. The stories these selected photos tell are bound to cover only some facets of the institute's development. Other photos would perhaps tell different stories.

The photographs presented here highlight certain locations on the IIMA campus. People who have experienced the ambience of the campus will be able to relate better to these--the 'demonstration' arch that Kahn built, or the grand central staircase of the Vikram Sarabhai Library, or the playfully named 'Harvard' Steps. Others will find, in the images and the stories they reveal, an insight into what makes IIMA the institution it is today.

The monograph is based primarily on the records maintained by the IIMA Archives. These include the deliberations of the committee that was in charge of building the campus and the institute's leadership, and other miscellaneous papers. A few books that were consulted are mentioned in the list of references.

The monograph is organized into four chapters. The first chapter is a brief introduction to the Main Campus of IIMA--which also earned the title of 'Old' after the New Campus

¹The word dormitory here refers to a hostel, in which students were allotted individual rooms--IIMA's programmes require students to stay on campus. A floor of a dormitory had ten rooms and a common bath-toilet, and a pantry space. In this monograph, dormitory, dorm, or D with an identifying number attached to it all refer to the student hostels.

came up. The second, which comprises the bulk of this volume, is devoted to Louis Kahn and the stories about his designs. The third chapter discusses some of Anant Raje's work that Pranalal Patel had photographed. The 60 photographs are spread across these three parts, illustrating the behind-the-scenes stories that form the text. The final part engages with the 'bricks' that make up this famous red-brick campus, and then fast forwards to the present (early 2023), when the institute has decided to reconstruct and remodel most of the buildings of the Main Complex in order to create structurally safe and renewed living and working spaces. Creating a new idiom that is true to the legacy of Louis Kahn and anticipates the future needs of the institute is going to be an exciting experience for the institute. The new order that will take shape over the next few years, one hopes, will set fresh standards of excellence for the coming decades, just as the old one did six decades ago.

A note on the in-text referencing

In order to enable easier reading, this volume follows an unconventional style of in-text citation. The books consulted have been given codes; for example, the book *Louis Kahn: Essential Texts* is referred to as ET. This code will appear in the text wherever relevant, along with the page numbers. The list of references includes the list of the codes and their full bibliographic details. Other documents like magazines are referenced in footnotes.

Acknowledgements

This volume was made possible by the collections that the IIMA Archives has built up over the past five years, specifically, the Pranalal Patel Collection and the records of the early deliberations of the institute's Governors and the Building Committee. The author thanks Abhishek Mishra, Archivist, and Hardi Shah, Archives Assistant, of IIMA Archives for facilitating the compilation of the photographs for this monograph; Kanchan Jansari and Dipika Makwana for organizing the transfer of Pranalal Patel's photographs to the Archives; Chinmay Tumble (the founder-Chairperson of the IIMA Archives, 2017-2020) and B. B. Chand, members of the IIMA Archives Executive Committee for supporting the launch of an IIMA Archives monograph series; Paresh Amleshwarwala for his design inputs, and Laura Linard, Senior Director, Baker Library Special Collections, Harvard Business School for permission to reproduce the image in the appendix of this volume.

Disclaimer

The views expressed in this monograph are personal; they should not be interpreted as the views of the IIMA Archives or of the Indian Institute of Management Ahmedabad.

Note: Initial version, January 19, 2023. Revised, February 7, 2023.

Vijaya Sherry Chand

Professor, Ravi J. Matthai Centre for Educational Innovation
Chairperson, IIMA Archives (2020-23)

An introduction to the protagonists

LOUIS I. KAHN

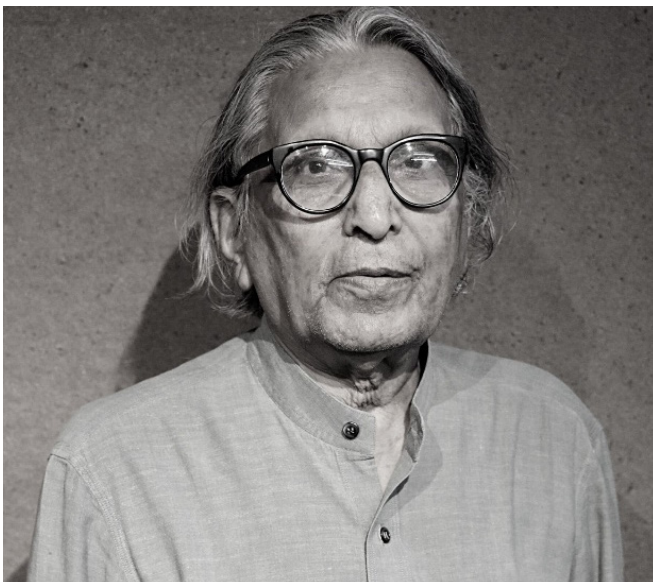
Louis Kahn was born in Estonia in 1901, but moved to the United States at the age of five. He graduated with a Bachelor's degree in Architecture from the University of Pennsylvania in 1924. The projects that he undertook over the next 50 years established him as one of the modern masters of architecture. He taught at Yale University between 1947 and May 1955, and started teaching at the University of Pennsylvania's School of Fine Arts in the fall of 1955. In the fall of 1966 he was appointed the first Paul Philippe

Cret Professor of Architecture at the University of Pennsylvania. His work on the Indian subcontinent includes the Indian Institute of Management Ahmedabad campus (1962-74) and the Sher-e-Bangla Nagar, the national parliament complex in Dhaka, Bangladesh. Kahn died on March 17, 1974. At IIMA the plaza in the courtyard of the main complex is named after him.



BALKRISHNA V. DOSHI

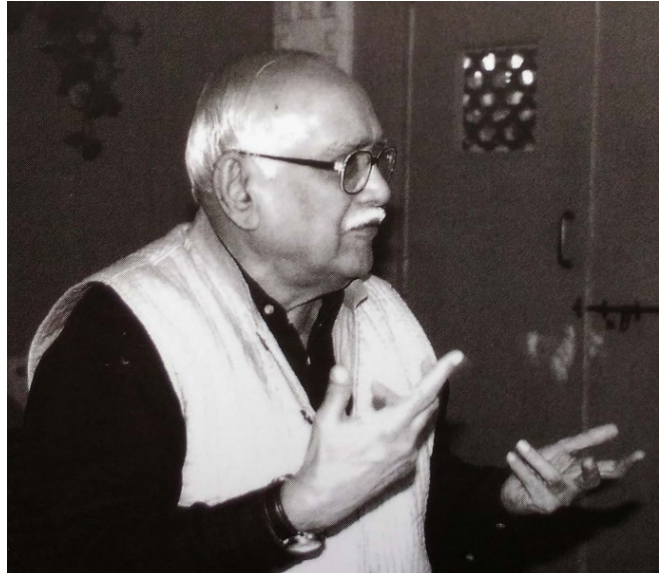
Balkrishna V. Doshi (1927-2023) was the first Indian to win the prestigious Pritzker Architecture Prize (2018). He was honoured with the Padma Shri, the Padma Bhushan, and the Padma Vibhushan (posthumously) awards by the Government of India. Doshi had already worked with Le Corbusier on his Indian projects, and had also designed the Institute of Indology at Ahmedabad (1958), when he was asked by Vikram Sarabhai and Kasturbhai Lalbhai to recommend a suitable architect for IIMA. He suggested Louis



Kahn as the best choice for the job. Doshi worked with Kahn on the IIMA project. Doshi passed away on January 24, 2023.

ANANT D. RAJE

Anant D. Raje (1929-2009) contributed significantly to the development of the Main Campus of IIMA, first as the on-site architect representing Louis Kahn, and later, with his own creations. Notable among the latter are the students' mess, the Kasturbhai Lalbhai Management Development Centre, and the Ravi J. Matthai Auditorium. A graduate of the Sir J.J. School of Art (1954), Raje worked with Louis Kahn at his Philadelphia office from 1964 to 1969, before returning to India to oversee the design of the IIMA campus. After Kahn's death in March 1974, Raje became IIMA's lead architect, and was associated with IIMA till 2003. He received the Indian Institute of Architects' Baburao Mhatre Gold Medal in 1994.



PRANLAL PATEL

Pranlal Patel (1910-2014) started his photography journey in 1932. He became an Associate of the Royal Photographic Society of Great Britain in 1946 and was made an Associate of the India International Photography Council in 1993. He was the recipient of numerous international and national awards, and his photographs have been published in a wide range of magazines and books. His work continues to be exhibited through permanent collections in places like the Gandhi Ashram, Ahmedabad. When he was not engaged in the usual business of photography--covering social functions and the like, he travelled to different parts of the country in search of vignettes of rural life, tribal cultures, pilgrims on their journeys, and festivals.



He was particularly interested in Ahmedabad's transformation in the 20th century and photographed many new buildings that came up just before and soon after Indian independence. Examples of these include Electricity House, the Ahmedabad Textile Mill Owners' Association building designed by Le Corbusier, many industry-related buildings and IIM Ahmedabad. His wife, Damayanti Patel, was technically skilled in the backend work related to photography. His son, Anand Patel, and grandson Gautam Patel, manage the business today.

Note: Photos of Louis Kahn, Balkrishna Doshi and Anant Raje: IIMA Archives; photo of Pranlal Patel: Anand Patel.

1

GENESIS

The Indian Institute of Management Ahmedabad (IIMA) was the result of the Government of India, the Government of Gujarat, and a few Ahmedabad-based individuals like Vikram Sarabhai and Kasturbhai Lalbhai joining hands in 1961 to set up a Society to run an institute of management education. It was one more step in the endeavour to establish institutions of higher technical and professional education in a young independent country. Soon after independence, in 1948-49, the Council for Technical Education (later known as the All India Council for Technical Education) set up an Industrial Administration Business and Management Committee to recommend ways of introducing formal management education. Its 1953 report advised the government to set up a national institute of management (two institutes, the Indian Institutes of Management at Kolkata and Ahmedabad actually resulted), a Board of Management Studies to look at university offerings, and an administrative staff college, which was established in 1956 in Hyderabad. In the meanwhile, a few institutions such as the Xavier's Labour Relations Institute (XLRI), established in 1949, and the Indian Institute of Social Welfare and Business Management, which was actually a public-private partnership among the University of Calcutta, the Government of West Bengal, the Government of India and local industry, had started their programmes. However, the major focus was on executive education. Delhi University started a three-year part-time programme in 1954, and the various 'Management Associations' in various cities, and the All India Management Association formed in 1957, offered programmes for working executives.

The Ford Foundation's India representative, Douglas Ensminger, keen on entry-level management education, facilitated the development of two reports on the 'national institute of management', one by Richard Meriam and Harold Thurlby of the Harvard Business School (1957) and the other by George Robbins of the University of California Los Angeles (1959). By this time, management education had entered the university system, for instance at Andhra, Madras and Bombay, but Robbins wanted the national institute to be outside the university system, and recommended 'an autonomous society organized under the Societies Registration Act (XXI of 1860)' as the owner.² This recommendation formed the basis for the formation of the IIMA Society.

²Robbins, George W. (1959). 'Recommendations for an All-India Institute of Management', https://archives.iima.ac.in/public/documents/1959_Recommendations_for_an_All_India_Institute_of_Management.pdf, p. 5.

Obtaining land for the institute was one of the early priorities of the Board of Governors of the IIMA Society. In its very first meeting on February 28, 1962, the Chairman, who also happened to be the Chief Minister of the state of Gujarat, announced that the state government would bear the cost of approximately 65 acres of land (Rs. 27 lakh at that time),³ by paying the institute the amount in three instalments, 40% immediately, 30% in April that year, and 30% in April 1963. The institute would have to pay back the amount in lieu of the allotted land. However, the catch was that the institute would have to pay the two 30% instalments (Rs 16.2 lakh) immediately. The Bank of India, at the Society's request, offered cash credit facilities for this amount, with certain conditions attached, and the Board agreed to take this route. However, the government found a way of paying the institute the entire amount so that it could deposit the full Rs 27 lakh. The land was transferred to the institute and the Board in its second meeting (June 30, 1962) noted that the institute now had 64.85 acres (the Main Campus today). The institute did not have to take the bank loan after all. And, as an example of how the institute has developed its attitude to managing resources, one may add that the land was promptly leased out for grazing cattle during the monsoon season of 1962. The institute had a night watchman, H. P. Malek stationed at the site. He cycled to the institute's offices in Shahibagh (also spelled Shahibaug in the records) and back every day, about 16 km in all, working as the institute's peon. With the institute in control of the land, the stage was set for campus development.

The pre-campus home of the institute

True to the entrepreneurial spirit that characterized the founding of the institute, the founders did not wait for the campus to come up before starting on the main purpose of the institute, namely education. A bungalow that had belonged to Nirmala Bakubhai--who hailed from a business family--and which was now managed by the Nirmala Bakubhai Charity Trust was identified as the institute's first home. On January 28, 1962 the institute decided that "the house of Mrs. N. Bakubhai Charity Trust in Shahibaug might be hired." Shahibaug was a locality on the eastern side of Ahmedabad, which had a number of bungalows at that time. The institute would come up on land that was at the other end, the western end, beyond the city limits. The Planning Committee of the institute authorized Vikram Sarabhai to work out the details, including the amount of rent to be paid. He then got an official of the Government of Gujarat to inspect the bungalow and identify the repairs that were needed. Vikram Sarabhai then wrote to Gautam Sarabhai, the managing trustee of the charity on February 26, 1962 regarding the formalities to be completed. The institute occupied 310, Camp Road in mid-1962, and this was its address for about three

³ 10 lakh=One million. 2.47 acres=One hectare. The earliest documents give the amount of land in acres and gunthas--40 gunthas make up one acre. The land allotted--the area covered by IIMA's Main Campus--was 64 acres and 34 gunthas, or 64.85 acres (roughly 26.3 hectares).

years. The second Board meeting held on June 30, 1962 seems to have been the first major meeting held on the new premises.

The house was initially taken for a period of one year ending in June 1963; the agreement was then renewed for another six months (up to December 31, 1963), and then finally for a further period of a year and a half, up to June 30, 1965. In April 1964, the institute also decided to hire one floor of a bungalow, the 'Govindlal Amritlal bungalow', at a monthly rent of Rs 1000 from May 1, 1964 to June 30, 1965, to accommodate its growing needs. In addition, halls were taken at the Ahmedabad Textile Industry Research Association (ATIRA) on an annual rent of Rs 5000 plus electricity charges, to serve as classrooms for the initial batches of the postgraduate programme that began in 1964. The students were housed in rented flats that had been built by the Gujarat Housing Board. Initially, 18 flats were hired, at a rent of Rs 225 per month per flat, from June 1964 to March 1965. A little later, from July 1965, 42 flats were made available to the institute by the Housing Board. This was the time to wind up at the Shahibaug residence and move to the Housing Board flats. The Board authorized the construction of a temporary shed to serve as classrooms for the students. This was built near the present fitness centre on the Main Campus and later demolished. By 1966, the locus of academic activities had shifted to the 'red-brick' campus, with the faculty occupying Dorm 12 and the library being housed in a few faculty houses.

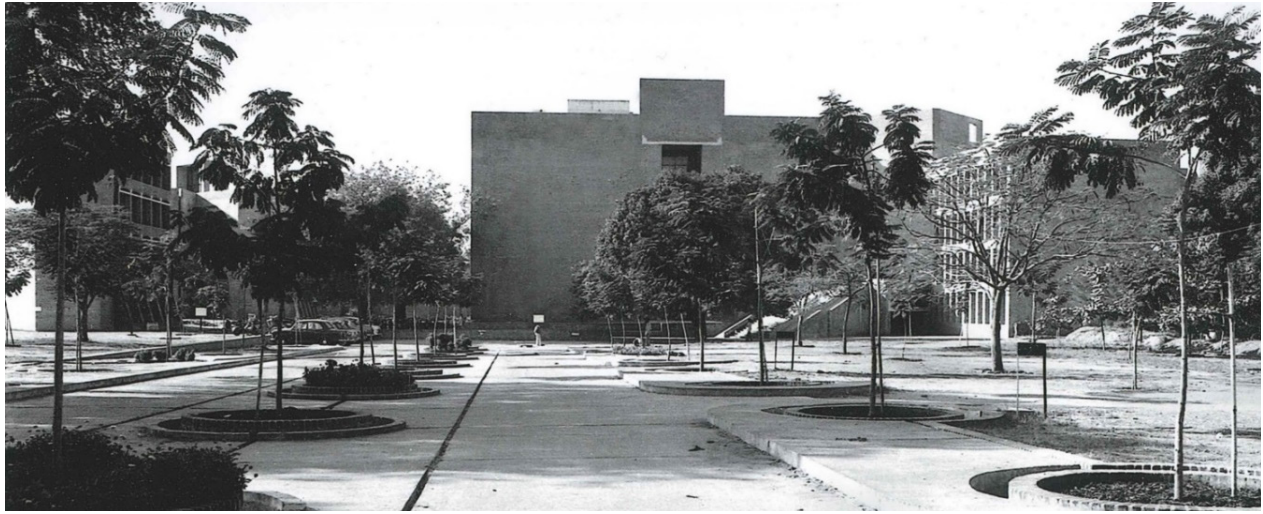
Louis Kahn and IIMA: A prelude

Louis Kahn's association with IIMA as its architect began in 1962 and ended when he died in 1974. We take up Kahn's work at IIMA in detail in the next chapter, but an extract from a 2009 brochure of the institute gives us a sense of why the red-brick campus that he designed became an iconic masterpiece of twentieth-century architecture.

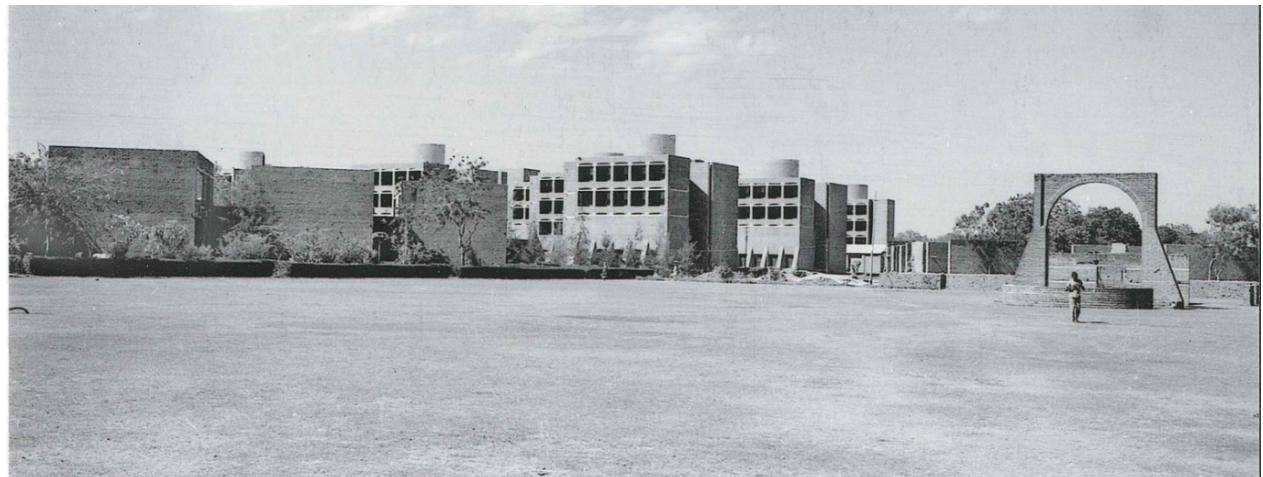
"His imposing red-brick complex instils in the viewer a sense of awe and wonder; the interplay of light and shade, the spacious corridors, the open spaces, the well laid out green lawns lined by brick paths, and the multitude of arches supporting the structures, all contribute to this experience. The closeness of the students' dormitories to the academic complex--the two blocks connected by a series of arched corridors and landscaped courts--helps students take the academic dialogue into non-academic spaces. To quote Louis Kahn, 'Every time a student walks past a really urgent, expressive piece of architecture that belongs to his college, it can help reassure him that he does have that mind, does have that soul'."

We enter the campus through its main gate and encounter a spacious forecourt (Image 1). This entrance, a little distance before the northern corner of the campus, is located very close to the one Kahn originally envisaged as the main entrance into the campus.

The earliest plans show this forecourt as a large circle, perhaps a little to the right of this entrance.



1. View of the Main Campus from the entrance, mid-1970s. The Vikram Sarabhai Library's northern façade is in the middle, partly hidden by the famous mango tree (to be discussed later) at the foot of another icon of the campus, the playfully (and informally) labelled 'Harvard' Steps, completed in 1974. The first block of faculty wings (the administrative block), is visible to the right, and on the left is one of the outer dorms (Dorm-16). Today the greenery in this space makes such a clear view of the structures in the background impossible.



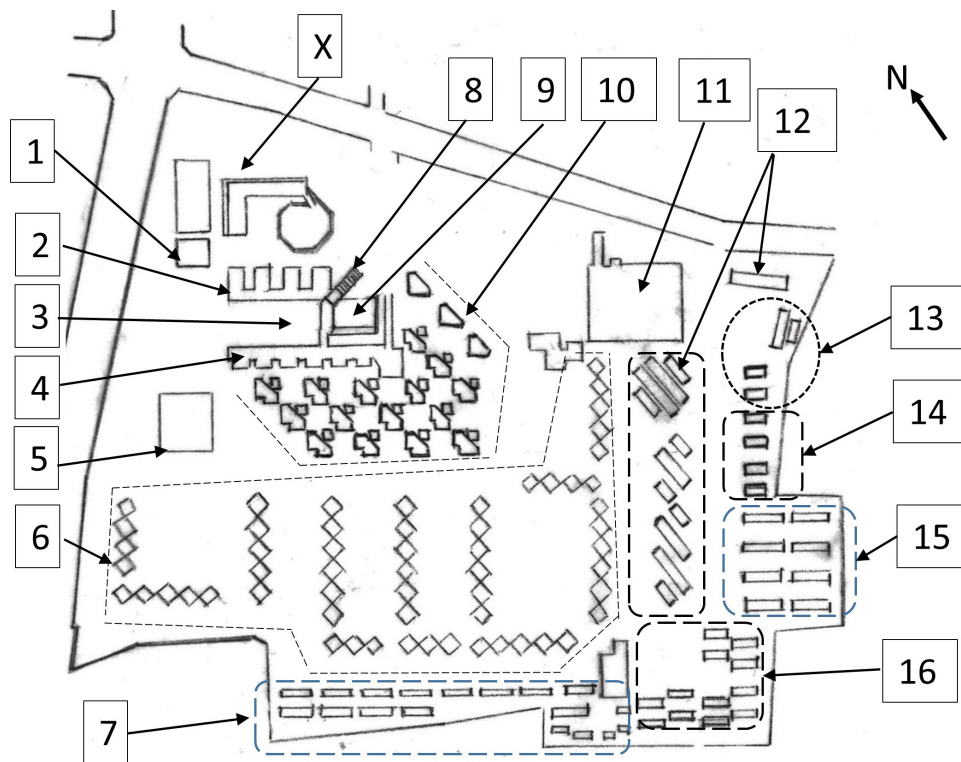
2. If one had entered from the opposite (southern) corner of the campus through a small gate known as the 'Azad Gate' - that leads out to the Azad Housing Society, and walked a little ahead, one would have encountered this panoramic view (1980): faculty houses on the left, a cluster of dorms in the middle and the famous 'demonstration' arch that Louis Kahn built and the Institute decide to preserve (right). The open area in the foreground is now a beautiful lawn. Once again, this view is impossible today because of all the trees and greenery that have come up.

The Main Campus: An overview placing Kahn's IIMA in context

Starting with an initial plan for the campus in March 1963, Kahn developed many versions. We take up this story in the next chapter. In order to help our readers place these changes in context, and as background to the chapters that follow, we first present a sketch of

the Main Campus as it was up to a few years ago. The core area comprising the central courtyard (with the iconic Louis Kahn Plaza), the administrative block (or the Faculty Wings), the library and the classroom complex, along with the dormitories and some of the housing, were realized in accordance with the plans that Kahn had developed. The kitchen-dining complex and the Kasturbhai Lalbhai Management Development Centre were Raje's creations. Raje also completed a number of houses that had not been built at the time of Kahn's death. Raje also designed other structures like the Ravi J. Matthai Auditorium (1994). We then present a chronology of the development of the campus, listing the years in which the various structures were formally declared completed.

Figure 1.1 Sketch of Main Campus, around 2018



Legend

1	Service tower	9	Vikram Sarabhai Library
2	Administrative block (Faculty Wings)	10	Dormitories, six rows of three in each
3	Louis Kahn Plaza	11	Kasturbhai Lalbhai Management Development Centre, with annexe
4	Classrooms 1 to 6 (right to left)	12	Faculty transit houses
5	Students' mess	13	Staff houses, Type III
6	Faculty houses (Types III, IV, V)	14	Staff houses, Type II
7	S-type staff quarters	15	Staff houses, Type IIA
8	'Harvard' Steps	16	Staff houses, Type I
X	Sports complex + Ravi J. Matthai Auditorium (not covered in this volume)		

Table 1.1: Completion of the various structures on the Main Campus

Sr. No.	Building	Building Number	Units	Year of completion
1	Dormitories	D 6	1	1966
2	Dormitories	D 12	1	1966
3	House Type III	301 to 312	12	1966
4	House Type III	316 to 320	5	1966
5	House Type IV	401 to 425	24	1966
6	House Type V	501 to 505	5	1966
7	Dormitories	D 2	1	1967
8	Dormitories	D 1	1	1968
9	Dormitories	D 3	1	1968
10	Dormitories	D 5	1	1968
11	Dormitories	D 15	1	1968
12	Dormitories	D 10	1	1969
13	Dormitories	D 11	1	1969
14	Dormitories	D 4	1	1970
15	Dormitories	D 7	1	1970
16	Service Tower		1	1970
17	Dormitories	D 16	1	1972
18	Dormitories	D 17	1	1972
19	Library Building		1	1973
20	Wings: Faculty Block		1	1973
21	Ambulatory & Main Entrance Steps		1	1974
22	Classroom Complex (CR-1 to CR-6)		1	1974
23	Dormitories	D 9	1	1975
24	Dormitories	D 14	1	1975
25	House Type III	313 to 315	3	1976
26	Dormitories	D 13	1	1977
27	Dormitories	D 18	1	1978
28	Kitchen-Dining Block (Mess)		1	1978
29	House Type IV	426 to 430	5	1979
30	Type IIA	201 to 230	30	1980

Sr. No.	Building	Building Number	Units	Year of completion
31	Dormitories	D 8	1	1981
32	KLMDC Main		1	1981
33	Type II	II-1 to II-8	8	1984
34	Type IIA	231 to 240	10	1985
35	House Type III	III-1 to III-4	4	1987
36	House Type IV	431 to 432	2	1987
37	House Type IV	433 to 434	2	1988
38	S Type Houses	S-1 to S-75	75+ 2 unnumbered	1967 to 1988
39	Type I Houses	101 to 160	60	1976 to 1988

Notes:

1. The units comprising the S-type and Type I categories were built over a number of years.
2. The shaded rows indicated structures completed after Kahn's death.
3. Structures completed after the time period this monograph is concerned with are not shown.
4. Anant Raje completed many structures that Kahn had initiated, and developed his own designs for a few structures like the KLMDC and the kitchen-dining complex (Chapter 3 of this volume.)
5. Note that the institute started using many of the buildings even before they were formally declared completed. For instance, a dormitory could have students staying on some floors, even as work went on on other floors.
6. Source: IIMA Building Records.

2

LOUIS I. KAHN AND THE ‘EXISTENCE-WILL’ OF IIMA

Louis Kahn died of a heart attack on March 17, 1974, at the Pennsylvania Station, New York, while returning from Ahmedabad to Philadelphia. On April 27, 1974, the Board of Governors adopted a resolution condoling his passing.

The Indian Institute of Management Ahmedabad deeply mourns the sad and sudden demise of Professor Louis I. Kahn, who passed away on Sunday, March 17, 1974, in New York City, on his way back from a visit to the Institute.

Professor Kahn by any standard was one of the greatest architects in the world. He looked upon his work as ‘an offering to the spirit of architecture’. One can find specimens of his ‘offerings’ in various parts of the world, including Kimbell Art Museum, Fort Worth, Texas; Bangladesh’s capital, Dacca; Hurva Synagogue, Jerusalem; Congress Hall, Venice; and the Salk Institute, La Jolla, California.⁴

During the last 12 years he has been associated with the designing of the Institute campus which provides, in his own words, “a house of inspiration to learn, to question, to live, and to express.” Professor Kahn’s design has already put Ahmedabad on the architectural map of the world and has given the Institute community a unique and an exciting complex. Incidentally, his last professional act was in relation to the proposed expansion of the Institute’s physical facilities.

In the death of Professor Kahn, the world of architecture has lost a towering light and a fountain of inspiration. The Institute has lost the creator of a campus with a difference.

We pay our respectful homage to the memory of Professor Kahn and share the grief of Mrs. Kahn and other relatives, friends, associates, disciples, and students throughout the world.

The Board was joining many others in recognizing him as “one of the greatest architects in the world.” On July 13 that year, the Board named the brick-paved plaza that had just been completed after him. Being an important location for various outdoor activities on the campus, the iconic Louis Kahn Plaza, popularly known as just ‘LKP’, is perhaps the best

⁴ The Hurva Synagogue, Jerusalem and the Congress Hall, Venice (Palazzo dei Congressi) that the Board refers to were never realized, though Kahn spent many years on their design. ‘Bangladesh’s capital, Dacca’ refers to the Sher-e-Bangla Nagar that Kahn designed in Dhaka to house the national assembly and hostels.

known feature of the institute, appearing in countless photographs along with the library, classroom block and the administrative block and on souvenirs such as coffee mugs.⁵

Louis Kahn was born in Estonia in 1901, but moved to the United States at the age of five. He graduated with a Bachelor's degree in Architecture from the University of Pennsylvania in 1924. The projects that he undertook over the next 50 years established him as one of the modern masters of architecture. He taught at Yale University between 1947 and May 1955, and started teaching at the University of Pennsylvania's School of Fine Arts in the fall of 1955. In the fall of 1966 he was appointed the first Paul Philippe Cret Professor of Architecture at the University of Pennsylvania. His work on the Indian subcontinent includes the IIM Ahmedabad campus (1962-74) and the Sher-e-Bangla Nagar in Dhaka, Bangladesh.

Louis Kahn was introduced to Vikram Sarabhai and Kasturbhai Lalbhai, the spearheads of the IIMA project, by the Indian architect, Balkrishna V. Doshi. Doshi had worked with Le Corbusier on his Indian projects, and had also designed the Institute of Indology at Ahmedabad (1958). Ahmedabad had four buildings designed by Le Corbusier, and Vikram Sarabhai wanted the IIMA campus to be designed by an equally illustrious architect. Doshi suggested Louis Kahn as the best choice for the job; he had already developed a rapport with Kahn during his time in the United States. Doshi approached Kahn for the IIMA project during the Aspen Design Conference that both of them attended in 1962.

In a meeting of the Board on June 30, 1962, Vikram Sarabhai informed the Board that the National Institute for Industrial Design, Ahmedabad,⁶ had been approached to design the IIMA campus, and that Louis Kahn had been approached with a proposal. In the next meeting (August 3, 1962), Kasturbhai Lalbhai, who headed the Building Committee of the Board, confirmed that NID was being asked "to undertake the work of the designing of this Institute. The Design Institute will be appointing B. V. Doshi as Indian architect, and Mr. Louis Kahn, as Foreign Consultant. Both Mr. Doshi and Mr. Louis Kahn, on behalf of the Design Institute, will work directly with the Management Institute. The fees to be paid to the Design Institute will be 5 per cent of the cost of the building, including interior fittings and decorations, plus the passage both ways of Mr. Louis Kahn and his living expenses in India during his two trips."⁷ The Board approved the appointments.

⁵ A plaza technically is a public square that has a hard surface or is paved. In popular usage, 'LKP' usually includes the brick-paved platform and the large lawn that is at a slightly lower level to its west--the entire courtyard.

⁶ The institute was later called National Design Institute, and even later the National Institute of Design (NID), by which name it is known today.

⁷ With effect from June 1, 1969, the task of designing the IIMA campus was transferred to Doshi, and NID's role as IIMA's design agency ended. The IIMA Board of Governors ratified this arrangement on September 20, 1969 noting that "Shri B.V. Doshi, Architect, had taken over responsibility of the building programme under the overall direction and supervision

Kahn made his first visit to Ahmedabad in November 1962. Regardless of the terminology used to describe Kahn at that time--‘foreign’, ‘consultant’, and so on, it was clear to everyone that Kahn was *the* architect; “Kahn’s lead role was never in doubt” (BTS, 140). This was also the way Doshi wanted it to be; he felt that India would benefit from such an association. Kahn, guided by Doshi, visited the nearby monuments like the Sarkhej complex and the Adalaj Step Well.⁸ These visits, and the other trips Kahn made to a number of historical sites on the subcontinent helped him understand various Indian local architectural traditions and influences. It was in 1962 that Anant Raje met Kahn in Ahmedabad. Raje joined Kahn in 1964 at his Philadelphia office, and returned to oversee the IIMA project in 1969.

What was Kahn’s approach to IIMA’s design?

Much has been written about Louis Kahn’s approach to architecture, his philosophy of design, and his use of a range of materials, including concrete and brick. For example, one of the works cited in this monograph, *Louis Kahn: The Power of Architecture*, has an extensive bibliography, pp. 355-356). In this section, we offer in brief, a few thoughts on the influences that may have had a role to play in the design of the IIMA campus.

In *Kahn: The Islander* (2016), Treier and Maasik make a connection between the ‘courtyard’ element that dominates some of Kahn’s designs (like the one for IIMA), and the castle at the Estonian town of Kuressaare, on the island of Saaremaa. Sidestepping the issue of Kahn’s place of birth--he was born Leiser-Itze Schmuilowsky in Parnu (on the mainland) according to a certificate found in 2006, though Treier and Maasik note that one cannot be certain “whether he was actually born in Arensburg (i.e. Kuressaare), on a boat, or in Parnu” (KTI, 13)--it is likely that Kahn might have been influenced by the Kuressaare castle at a very young age, or during his extended visit to the island in 1928. The 14th century castle is built in a ‘convent building’ style and makes extensive use of geometric forms. “A ‘convent building’ is a castle with a square floorplan and a square courtyard in the middle. The four wings of the building are assembled around the courtyard, each with a specific purpose... One does not pass through the rooms, they are connected by a passage or cloister on the side facing the courtyard” (KTI, 16). At IIMA, Kahn tried his best to get his idea of an enclosed courtyard accepted. Three sides were made up of the library on the east, the classrooms on the south, and the administrative section in the north. The ‘castle refectory’, the kitchen-dining complex in IIMA’s case, was supposed to

of Prof. Louis Kahn with effect from 1.6.1969. He would be assisted by Shri A. Raje, Senior Architect.” Kahn had to make many more visits than the two mentioned here. The terms of payment mentioned here were also revised later.

⁸ Sarkhej is an architectural complex, initially developed in the mid-fifteenth century around the tomb of a religious person, Ahmed Khattu Ganj Baksh. Adalaj is known for its stepwell, completed around 1500 C.E.

close off the western border of the courtyard. This never happened. We return to this later.

The theme of the ‘convent building’ plan, its austerity and its linkages with the religious architecture of Europe that Kahn had studied extensively recurs in a remark about the IIMA plan: “The plan comes from my feelings of monastery. The idea of the seminar classroom and its meaning of ‘To Learn’ extended to the dormitories comes from the Harvard Business School. The unity of the teaching building, dormitories and teachers’ houses--each its own nature, yet each near the other--was the problem I gave myself. The lake between student and teacher is one way of distance with little dimension. When I found this way, the dormitories tend psychologically to break away from the school, though it has no appreciable distance from it” (CW, 211). Here is Kahn extending the ‘teaching building’--with the courtyard as its centre, to how an educational institution should be organized: a larger unity with different levels, each level having interacting elements such as students and teachers, or residences and formal academic spaces. The ‘lake’ in the quotation is a reference to harnessing the ‘architecture of water’ (discussed later).

Curtis (PA2, 242) touches on the unity provided by a ‘monastery’: “...fringes of smaller spaces around the edges and larger courts or communal areas in the centre... For Kahn a teaching institute at this scale was like a small city, with its private dwellings, its transitional squares, its walls, stairways, and ramps. A plan for him was a ‘society of rooms’. One of his models was the basic type of the monastery with its distribution of individual cells, its larger collective order, its communal areas, and the linking cloisters and walkways in which casual encounters and exchanges may occur.” To better understand this larger unity, we have to appreciate his idea of an educational institution.

Kahn’s idea of education and an educational institution is best captured by his musings on the ‘existence will’ of a school. In a talk at the conclusion of the Otterlo Congress in 1959, he posed a question, “What is the existence-will of a school?” The existence-will for him was that quality of something that “makes the form” (ET, 40-41). “An architect thinks of a school possibly as being a realm of spaces within which it is well to learn.... Think of a man under a tree, talking to a few people about a realization he had--a teacher. He did not know he was a teacher, and those who listened to him did not consider themselves pupils or students... But around such a man there was a need that also grew. Around him were people who realized that they would like to send their children to this man too--to realize the things he realized.... [and so] the institution of learning must have in its mind--must have in its sense--the realm of spaces which you feel is sympathetic to learning.... You may go into a space which may be a Pantheon-like space. You would name it absolutely nothing--it would be a good place to arrive in which you say “school”--from which may

come other spaces... never naming anymore them either “classroom” or “auditorium” or “seminal” or anything, just realizing there is a sense to the realm of spaces where it is good to learn.”⁹

This approach certainly influenced Kahn’s conception of IIMA: “For all the geometric order of the overall scheme, Kahn also provided scores of gestures to the impromptu meetings that are so much a part of any successful campus. Walking the internal paths between buildings was not unlike a stroll through the complicated streets of an ancient city... Kahn’s subtle intertwining of pedestrian spaces compelled students and teachers to cross paths, and then provided eddies in which to pause, and low parapets that invited sitting and conversation” (BTS, 142-143). Doshi makes a similar point: “Lou’s emphasis on interaction amongst the students, between the faculty and students, and their integration with the functional and climatic needs are the major contributions to this institution... When one walks around the complex silently, either in cool winter or hot and stark summer, one gets the vibrations of conversations, dialogues, meetings and activities. The spaces that are created for these activities link the entire complex. The intermediate spaces, with their openings and formal linkages are one of the major characteristics of this complex. They are made in such a way that in spite of their rigorous geometrical order, their humble scale and invitation make one feel participate in ‘the act without becoming an actor.’”¹⁰

A third feature that figures prominently is Kahn’s treatment of the elements; the “experiential reality of the *natura naturata* [nature natured, or something in the physical world reflecting a conceptual principle of nature] began to assume a comparable importance for him by the early 1960s... his more strictly abstract “Platonic” viewpoint was supplemented with a more empirical understanding, wherein the elements were treated as what they are--sensually perceivable phenomena, material substances, and physical energies” (PA4, 182). Kahn, in our reading, is here making a fundamental distinction between law and rule, between form and design, in short between a conceptual primordial basis and its empirical expression. Thus, in a 1962 talk, he was able to say, “I am becoming increasingly conscious of the architecture of water, the architecture of air, the architecture of light, the architecture of movement, the architecture of sound; from which came notions--because they are not yet developed ideas...” (ET, 147-148). The *natura naturata* that one sees on the IIMA campus--whether it is the perforated walls that accommodate the harsh sunlight, or the transitional spaces from bright light to a relatively cool darkness (a good example of which is the entrance to the library), or in the adjustments made

⁹ This seems to be a transcription of the spoken word, and hence may be unclear at first glance. Kahn is referring to the unity that a ‘learning space’ should show, unfettered by the functional designations of its parts.

¹⁰ *Alumnus*, Vol. 19, Issue 2, 1987, p.6.

for the directionality of the wind--are easy to understand once one appreciates Kahn's contextualized understanding of the elements in a particular location as a force.

An example of the wind 'force'. Doshi alerted Kahn to the directionality of the wind and rotated a preliminary plan 135° counter clockwise towards the south-west, so as to catch the wind. Working out the details, Moshe Safdie, who was in Kahn's office, proposed that the walls should be parallel to this direction. Kahn accepted all these suggestions, but turned the plan clockwise 45°, leaving a slit between the arms of the dormitories in the wind-facing corner, thus ensuring some respite from the sun while not affecting the breeze-through effect: the "slits on the windward side opposed large and circular perforations on the leeward side. In addition, the vertical shafts of the staircases [which were between the slits and the perforations]--opposing the wind like a *badgire* or wind-tower--accelerated the air exchange" (PA4, 191). (It is another matter that some of these high slits were boarded up in later years.)

Water was another major concern. In many of his other works, Kahn was conscious of the need to design around the 'architecture of water'. For example, in Dhaka, the National Assembly complex emerged from a water body to culminate in a flower-like structure--the White Water Lily happens to be the national flower of Bangladesh. (Note that Kahn's designs predate Bangladesh's independence in 1971.) At IIMA, Kahn seems to have been influenced by his exposure to the indigenous architectural traditions. He was inspired by the "intelligent cooperation with these pervasive elements of water and vegetation in some of the best examples of Mughal Garden architecture" (PA4, 190). Thus, in his works of this time, he treated grounds and gardens as natural extensions of the buildings. It is therefore not surprising that the artificial 'lake' was an important component of his initial plan for the campus. However, this did not materialize. "The water element would have made a dramatic contribution to the composition, invoking the traditional 'tanks' like the one at Sarkhej while providing both a practical and a symbolic separation between the senior and junior scholars" (BTS, 147-148).

The story of the 'lake'

Why did the lake idea not materialize? Kahn was quite proud of the lake possibility--he referred to it in his lectures long after the idea had met with initial opposition. In a 1966 lecture to the Boston Society of Architecture, he showed the audience the details of the initial visualization of the lakefront and noted, "I have since changed them, but they are drawings I still like to look at even though it is far from what I am going to do" (ET, 214). IIMA's Building Committee, in a meeting on April 6, 1963 flatly declared that the lake idea was not feasible. Vikram Sarabhai had earlier, on March 17, 1963, written about the

problems that might arise from a large water body. On August 2, 1963, in a meeting in which Kahn was present, there was a detailed discussion about the need to bring down the cost of the lake as well as the manner in which water had to be kept circulating. In a note to Doshi (August 2, 1963), perhaps written soon after the meeting, Vikram Sarabhai had the following to say:

We appreciate the object which the pond is supposed to serve, namely to permit the proximity of the staff residential area to the dormitories and the academic area and at the same time provide a natural barrier between the two. There may be several ways of achieving the objective, but if Professor Kahn wishes to retain the water barrier we would like to make the following observations:

1. That the total capital cost of the feature does not exceed Rs. 3 lakhs. [The initial estimate was four times this.] This is a ceiling which we are forced to adopt on financial considerations. Further we feel that if the depth of the pond is no more than 1 to 2 ft it may be possible to provide a strip of water which, along with other vegetation, may provide a barrier which Professor Kahn desires.

2. We would like to have the minimum of recurring expenditure in connection with the pond. We would also like to eliminate the nuisance of mosquitoes. These two considerations may imply that we should not employ mechanical appliances for water purification, but should leave the pond as a lily pond with natural vegetation and fish which would prevent mosquitoes from breeding.

If the basic financial limitations can be satisfied in the proposal which Professor Kahn may like to make and the recurring expenditure of the upkeep of the pond is quite small, of the order of Rs. 5,000 per year, the Building Committee would be happy to approve of the scheme that may be submitted by Professor Kahn in September 1963.

Vikram Sarabhai followed this note up with a discussion with A. P. Kanvinde, a well-known Indian architect, and sent a cable message to Ahmedabad on August 20, 1963, stating that Kanvinde had suggested a shallow lily pond instead. Sarabhai, in the cable, also suggested that a look at the “Delhi ponds near Secretariat” might help. This initial resistance to the idea of the ‘lake’ did not make it go away. It remained a recurring theme. As late as February 2, 1969, at a meeting in which Kahn was present, it was noted that Kasturbhai Lalbhai was “firmly of the view that the average depth of the lake should be not more than 2 feet. It was important to keep in mind the need to circulate water and thereby keep it clean. He [Lalbhai] suggested that before going ahead with the excavation of the lake, expert opinion should be sought by Shri Doshi and the N.D.I.” One can sense the exasperation in Lalbhai’s implication that the idea was not sound. This seems to mark

the beginning of the fading away of the lake from the IIMA design discourse. It did linger on for a long time, however. For instance, on June 8, 1970 Doshi informed the Building Committee that Raje would “work out a scheme for the Lake in consultation with Prof. Louis Kahn,” and Raje even showed the lake in a sketch made after Kahn’s death.

It is clear that IIMA’s key decision makers were never really sympathetic to Kahn’s ‘architecture of water’; they were more worried about the cost that was clearly perceived to be too high, and the practical problems such as the water body becoming a breeding ground for mosquitoes in the absence of a reliable water circulation system--at that time, IIMA’s water supply was just moving to a mix of water supplied by the municipal corporation and ground water. The size of the water body must have generated anxiety--it was massive: a site map of 1964 shows the lake starting from the western-most first dorm (D 1) and going around the outermost dorms on the western and southern sides, all the way around the eastern row of dorms (current dorms 16 to 18). Thus, though the lake “would have made a dramatic contribution to the composition,” the institute’s decision makers’ resolute opposition to it had the last word.

The courtyard disappointments

The lake was not the only source of disappointment for the architect. The courtyard also had its own share of unrealized proposals. Why was the courtyard not closed off on its western side by the dining hall and kitchen? A ‘convent building’, after all, demanded a courtyard that was bounded on all four sides by wings performing different functions. The answer is quite straightforward. The decision makers on the Building Committee, primarily Kasturbhai Lalbhai, were never comfortable with a kitchen alongside the classrooms. A meeting of the committee, that was spread over two days (June 17 and June 20, 1966) simply recorded the following: “Kitchen and Dining Hall were very near to the teaching and faculty areas. The smell from the kitchen and dining area would be a nuisance to the classrooms and faculty rooms.” Resolute opposition to the idea of a kitchen on one side of the courtyard once again won at the end. In fact, one of Kahn’s last decisions (a couple of days before he died) was to shift the kitchen to the site that it occupies today. But he did not want a courtyard that was open at one end. So in one of his final sketches (March 15, 1974) he shows a structure, which he labels the ‘violin’, “to replace the kitchen-dining area and close the central court. This time, instead of an amphitheatre, he conceived the ‘Violin’, the theater of performing arts, as part of the school plaza” (CW, 232). With Kahn’s passing, the idea was given up, and the U-shaped main complex, with its lawn and brick platform surrounded on three sides by the administrative offices, the library and the classroom complex, established itself as an iconic image of IIMA.

There was another idea in the courtyard that failed to work itself out--this was the idea of a canopy stretched between two tall brick structures to partly cover the courtyard. We tell this story in the next section.

Design iterations

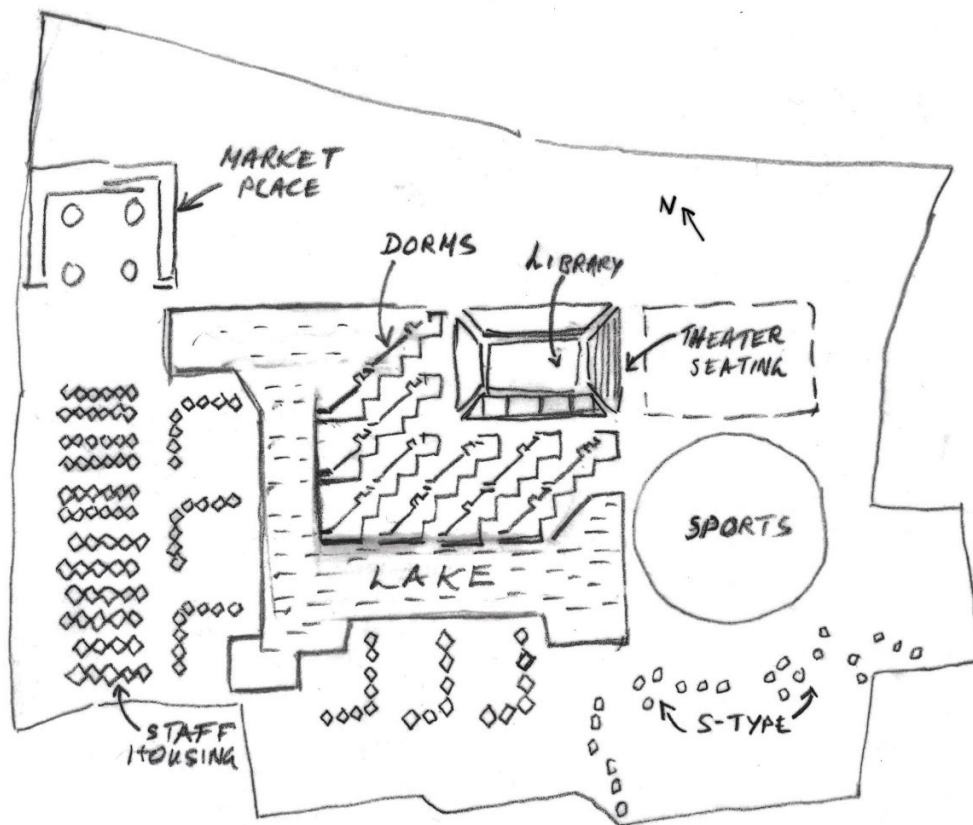
The key units of the campus as realized from the designs by Kahn that one sees today are the 'School Building' or the Main Complex, the student dormitories and the housing. In the Main Complex, as noted earlier, a central courtyard is surrounded by the library to the east, the classroom block to the south and the administrative (faculty offices) block to the north. The library is a five-floor structure, with a three-storey-high reading room. The faculty offices block has four units, each with four wings. The classroom block comprises six classrooms on the first floor, seminar rooms on the top floor and offices on the ground floor. The dormitories are placed in six rows of three dorms each. Five rows have three dorms in each, square in plan, placed corner to corner. Each floor of these dorms has a roughly triangular common area bounded by two arms, each with five rooms, and a semi-circular staircase. A square service block attached to the living space by one of its corners, completes the square plan. The third dormitory (outermost dorm) in each row has a double-height club room at the ground floor level. The IIMA Archives is housed today in one of these club rooms. These club rooms, in Kahn's original conception, were supposed to form a lake front and would have been reflected in the water. The sixth row of three dorms has a different plan: the service block has been done away with, the toilets moved to the ends of the arms, and the staircase turned 180° around. These are the dorms that one sees on the left, soon after entering the Main Campus. Their staircase walls, which form a bank of three tall and stark half-cylinders, are indeed impressive. The third component, faculty and staff houses, are of seven types, and are placed diagonally, oriented to the wind.

Kahn's IIMA project began with a visit to India in November 1962. We first present the various iterations that the campus design went through over a period of about three years, resulting in a design that approximated what was finally built. We then touch upon some of the minor changes that were made to this design.

The first sketches were prepared in November 1962. On November 15, 1962, Kahn had noted: "I use the square to begin my solutions because the square is a non-choice, really. I search for the forces that would disprove the square." The Main Complex (the 'School Building') and the dorms formed the core of the plan, and they were separated from the faculty housing by the famous lake. A decision to choose the highest part of the land for the Main Complex was made on March 18, 1963, with the central library surrounded by

the administrative wing at the top (roughly north-east), open-air seating on the right and classrooms at the bottom (roughly south-west). Surprisingly, at this stage, concrete was the material planned for the campus: “The building material, at this stage of the development, was to be concrete” (CW, 210). The reasons for the shift to exposed brick can only be speculated upon--we take this issue up later. Each row of dorms had four units, each of which had seven rooms for single students, and one unit for married students. These were connected by a common corridor and there were three common staircases for all the units. Five types of staff housing were visualized at this stage. A north-south orientation was used for the buildings (Figure 2.1).

Figure 2.1: Sketch of the very first plan made for the IIMA campus (March 1963).



Notes: The total number of staff housing units is 110, excluding 23 S-type (servants' quarters) houses at the southern end. The main entrance (not sketched here) was from the northern border, in line with the library. Note the connected dorms in each of the six rows. The free sketches in this and the next three figures are by the author and are based on the detailed plans presented in CW. See Appendix for an image of the site model that was made in Louis Kahn's office in March 1963.

This initial plan underwent substantial modification over the next three years, so that by early 1966, there was a reasonably stable plan, to which only minor changes were made. Ronner and Jhaveri (CW) show five more iterations that were made before this stable design could be reached.

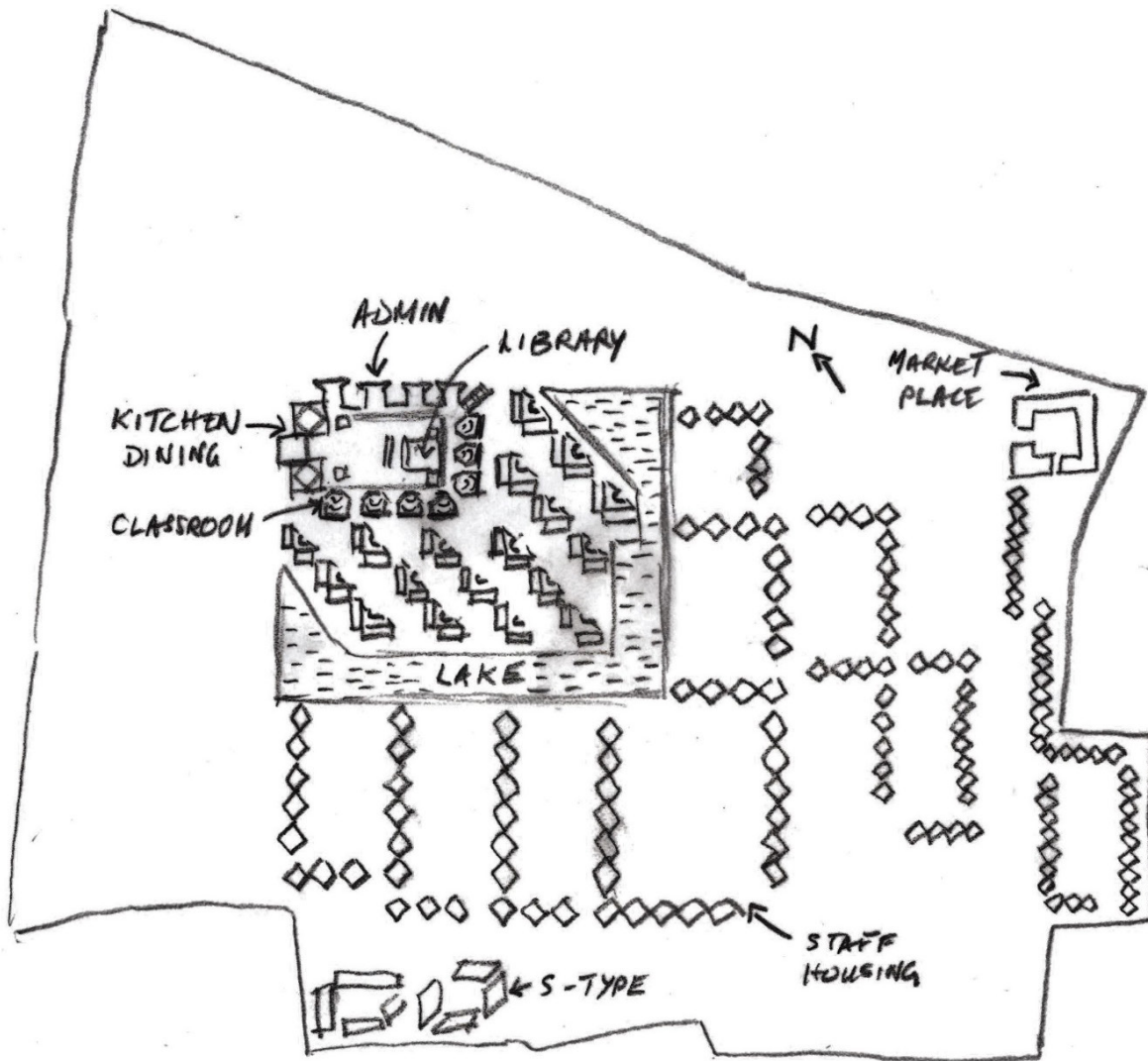
In the second version dating to July 1963, as a consequence of an intervention by Doshi, the complex was turned 135 degrees counter clockwise to take advantage of the southwest breeze. The idea of a row of five dorm units connected by a common corridor and common staircases was given up. Each dorm was given its own staircase--allowing for freestanding dorms; the number of units in a row was reduced to four, three for single students and one for married students. A third version dating to November 1963, was then developed with each row of dorms having only three individual units. The rooms were arranged along the two arms of a right angle, and the service block became a square. This was the arrangement that was finally realized. Kahn turned the complex back 45° clockwise, as discussed above, to take advantage of the south-westerly breeze and to avoid the hot sun as far as possible. In this version, the courtyard of the Main Complex came to the fore--the library was placed on the western side of the courtyard (opposite the end where it stands today). There were now six classrooms, four at the bottom and two to the right. Four wings at the top, and the kitchen and dining hall to the left completed the enclosed courtyard plan. The courtyard was supposed to be covered by a sun roof. The main entrance at the eastern corner, diagonally placed (the 'Harvard' steps of today), makes its definitive appearance in this version.

In the fourth version of April 1964, the library was shifted to the eastern side--the other end--of the courtyard. The classroom number increased to seven, four in a row on the southern side and three on the eastern side of the courtyard. In the next version, three married students' dormitories were placed at the north-eastern corner--nearest to the entrance (the current Dorms 16 to 18). These dorms, however, did not have the typical semi-circular stairs of the other dorms. In the sixth version, the married students' dorms were shifted a little away from the main complex, to make more room for the entrance area--one notices today that the end of this row is not aligned with the ends of the two other rows that are parallel to it. All the dorms, including Dorms 16 to 18, now had semi-circular stairs. A tower for water was added at the northern end and the marketplace brought to the eastern end (near where the Kasturbhai Lalbhai Management Development Centre stands today). The designs of the houses also went through a few revisions.

With these iterations, by the end of 1965 the broad plan was ready (Figure 2.2): a courtyard with two dining halls and a kitchen on the western edge, seven classrooms on the eastern and southern sides, a library in the courtyard and administrative blocks to the north; 18 dorms; and staff housing. The 'lake' separated the dorms from the faculty housing area. Behind the three classrooms on the south-eastern side (which were not built ultimately) there was a ramp and staircase leading to the first floor (classroom level)--the ramp was built and has been playfully called the 'Stanford' Ramp by generations of students. The origins of such creative names, the 'Stanford' Ramp or the 'Harvard' Steps, are shrouded

in mystery; all one knows is that the students came up with these names in the mid-1970s and that the labels were well entrenched by 1979.

Figure 2.2: Sketch of the plan at the end of six rounds of design (end-1965)



Notes: The houses are oriented to the south-west. The orientation of the dorms shown here was the one finally realized. The library is still inside the courtyard.

We now take up the story of the ‘canopy’. The design at this stage of development had two dining halls at the western end, with a space in between, which could be used as a stage. Kahn wanted to provide a canopy (to be put up on certain occasions) over the paved portion of the courtyard, in front of this space. The canopy was planned to be supported by two brick structures, 80 feet apart. What material did Kahn have in mind? Cloth. “The inner court will be shielded during certain ceremonies by a large canopy spanning eighty feet. What gave me the courage to do this was the architectural provisions made in the

courtyard of the Akbar Palace at Lahor (*sic*) for the same purpose. You know, the people in India make wonderful cloth and they have stretched even greater distances with it. This court is different from things I have conceived before. It gives such joy to be the one to discover a beautiful way of life that belonged to another civilization” (CW, 224). The brick structures that would support the canopy were never built though they are shown in the plans that were made later. One wonders what would have happened if the institute had supported this idea.

By April 1966, the number of classrooms on the south-eastern end had been reduced to two, and the library pushed eastward, towards the entrance stairs. A few months later, by February 1967, the library was finally moved out of the courtyard (to its current location), knocking off the classroom that was closest to the ‘Harvard’ steps. This left five CRs in a row and the sixth at right angles to this row. The four administrative wings were redesigned and deepened, resulting in the structure that stands today.

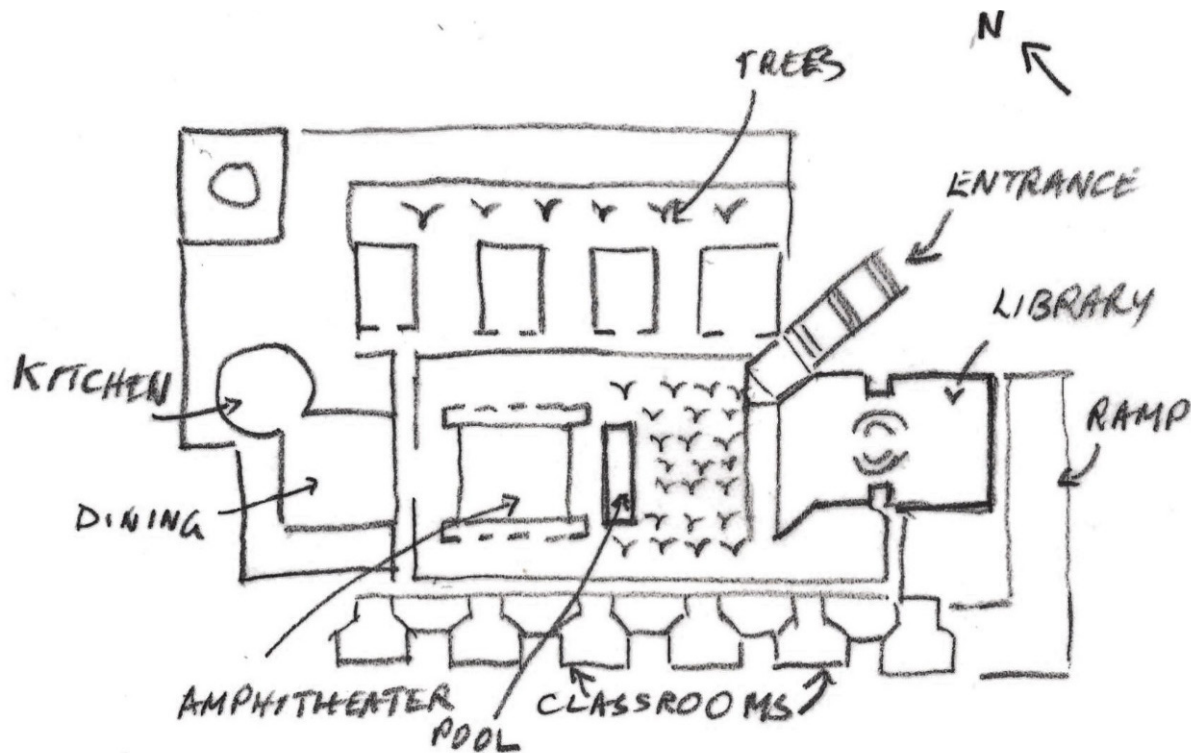
The house plans for the five types of houses were ready by this time. Just a short story to illustrate how a genealogical enquiry can reveal the strangest of origins of a taken-for-granted system. Kahn and the institute began with five types of houses for the staff. When the institute applied to the Government of India for some funds for construction, a team visited the institute to discuss the details. The team had four members: Dr. Kaumudi, Mr J P J Bilimoria, Dr D V R Rao and Mr G N Vaswani. The team had a meeting with Doshi and also attended a meeting of the Building Committee on February 17, 1967. The team suggested that since the government had seven types of housing for various categories of staff, the institute should consider adopting the scheme. The institute already had ‘Servants’ Quarters’--the S-type that was later known in more enlightened times as Subordinate staff quarters, and the five types for the staff. So it added the suffix A to Type II to come up with one more category--ever since, IIMA campus maps have indicated the odd ‘Type IIA’ houses.

In a meeting held on May 16, 1967, Kasturbhai Lalbhai suggested that the sixth classroom be moved in line with the other five to form a single row. Kahn readily agreed, and the plan for the six classrooms in a single row became the design that was realized.

The kitchen-dining complex also underwent a number of revisions. Around this time (1968-69), a square dining hall connected to a circular kitchen was proposed. A 1969 plan presents a beautiful picture of what Kahn wanted. The central court had an open-air theatre (with the possibility of a canopy over it) at the western end in front of the dining hall, and then a pool of water and trees in the eastern half of the courtyard, in front of the library. Inside the library, two semi-circular stairs were added between the reading hall and the stacks--the much-admired central staircase of the library--and the library

entrance was connected with the main entrance stairs (Figure 2.3).

Figure 2.3: Sketch of Main Complex, 1969, before the amphitheatre was shifted to the library end

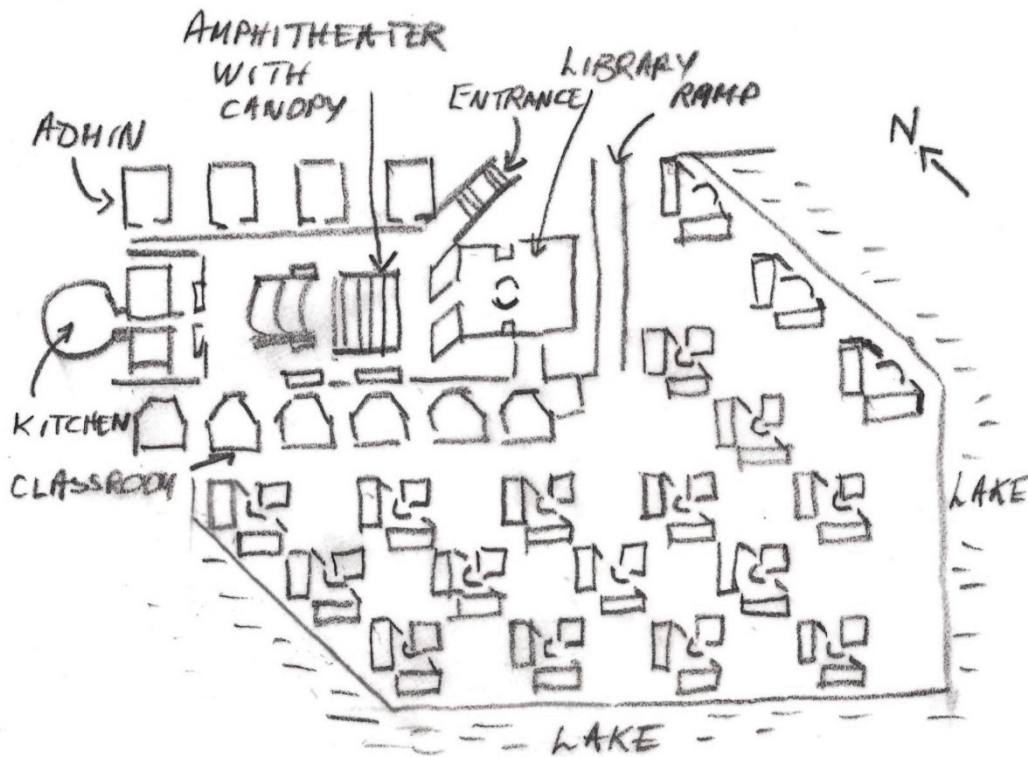


Note there are major changes here. The six classrooms are in one row, connected to the south-western face of the library. The courtyard has, from right to left, a garden and a pool and then the canopy-covered area.

Later that year, in November 1969, the open-air theatre was moved to the opposite end of the courtyard (the south-eastern side in front of the library), so that, moving from left to right, that is from west to east, the eye would note the following: the kitchen, two dining halls (one for students and one for staff), a loggia, a garden, a pool, an amphitheatre, a passage and then the library.

A little later, the three married students' dormitories were converted into single-student dorms (the present dorms 16 to 18) since the institute had decided to build separate quarters for married students. The square service towers that the other 15 dorms had were done away with and the bathrooms placed at the ends of the two arms. The semi-circular stairs were turned around resulting in the half-cylinders that one sees today from the outside. The first two of these were completed in 1972 and the third in 1978 (Figure 2.4).

Figure 2.4: Sketch of Main Complex, 1972



Note: This sketch has most of the structures that were finally built--the exceptions being the kitchen-dining complex (extreme left) and the canopied amphitheatre in the courtyard.

1973-74 was a busy year for the campus development, with the Main Complex getting completed. The faculty wings and the library were completed in 1973 and the classroom block and the entrance steps in 1974. Wiseman narrates a delightful story (BTS, 145) about how the 'Harvard' Steps managed to gain its impressive standalone visual effect. The institute wanted a grander entrance than the one Kahn had provided--true to Kahn's generally "sometimes dark, claustrophobic entrances" (ET, 7), the diagonal stairs were stuck to the side of a huge library building. Raje, in an effort to please both the institute and Kahn--Raje was aware of Kahn's image of a "school under a tree"--came up with the idea of using the famous 'mango tree' near the foot of the stairs as an anchor for the entrance. Generations of students would recall this famous icon; even today visitors get dropped off at the 'mango tree'. Raje suggested that the tree provided a natural canopy, and to gain the desired 'impressive effect', the library which was to come up immediately next to the stairs, be shifted towards the classrooms. The foundations had already been laid, but everyone agreed this was a great idea. And that is how the 'Harvard' Steps managed to stand out as 'the' entrance to the main complex, leading up, unusually, to the first floor--the usual Indian educational institute had its entrance on the ground floor. All

the significant symbols, the entrance to the library, the classroom corridor and the offices of the institute's leadership, were on the first floor. Many students have found this feature of the institute's design quite remarkable.

By 1975, the idea of a market place had been given up and in January that year, the site of the kitchen finalized--where it stands today. During his last visit to the institute Kahn, under relentless pressure to move the kitchen out, had agreed to shift the kitchen out of the western side of the courtyard. His sketches of March 15, 1974, two days before he died, however, indicate that he did want to close the courtyard. He shifted the amphitheatre back to the western side from the library end of the courtyard, but visualized it as a theatre of performing arts, labelling it the 'violin'. To the very end Kahn remained committed to his idea of an enclosed courtyard, with the structures on the four sides performing distinct functions.

The story of the 'demonstration arch'

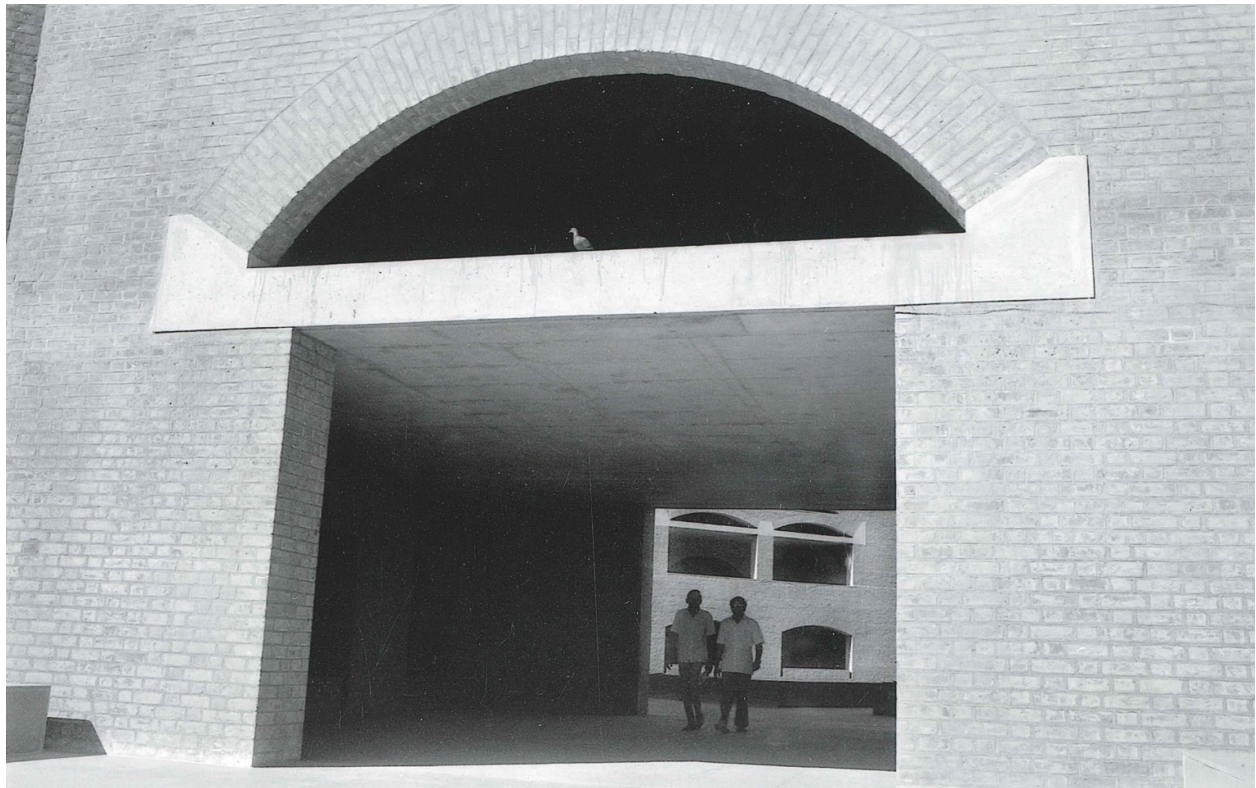
Work on the IIMA campus began on September 9, 1964, and over the next few months some preliminary work was carried out on three dorms (3, 9 and 15) and four houses (two of Type V and two of Type IV--the type provides an idea of the number of rooms). Louis Kahn, during a visit in December that year, was not happy with the dorm brick work and suggested that the initial work be dismantled. He felt that the work on the houses could be salvaged. The Building Committee then decided, on December 17, 1964, that samples of work that followed Kahn's instructions closely would be prepared within a week, for his approval. It also decided that "all the subsequent work carried out by the Contractors [*Gannon Dunkerley & Co.*] would be done according to the samples duly approved by Prof. Kahn." On December 25, 1964, Kahn approved the samples of arches, wall segments, brick-lining and other brick-related work carried out on this 'demonstration' plot. One more issue needed attention. Kahn had wanted $\frac{3}{4}$ inch mortar joints (space between bricks) with the Flemish bond--a pattern of brick-laying in which the 'headers' and 'stretchers', the short and long sides, are placed alternately in each layer, and which dominates the campus. The contractors felt that the additional cement and sand needed, and the higher amount of labour involved in the precision work called for would add significantly to the costs. They were told to prepare samples with half-inch mortar beds immediately. This was done and the next day, December 26, Kahn approved the use of the Flemish bond with half-inch mortar joints. Kahn was a hands-on person, and was not averse to picking up masonry tools to demonstrate to the masons what he wanted. As described in BTS (145), he wanted the mortar to be scribed along the horizontal joints--he was particular about the 'horizontality effect'. He had brought with him some American trowels that had a ridge for this purpose. The masons here, however, found it difficult to use them. Finally,

Raje found a way out by pressing a cord onto the soft mortar to get a reasonably similar lined effect. Kahn appeared to have been proud of these trials; in a 1966 speech to the Boston Society of Architects, he said, “Some of these arches of experimentation I’ve left in the gardens of these houses so that one can use them as playgrounds” (ET, 217). The children in the photo featured in this volume certainly seem to be using the structures as play props.

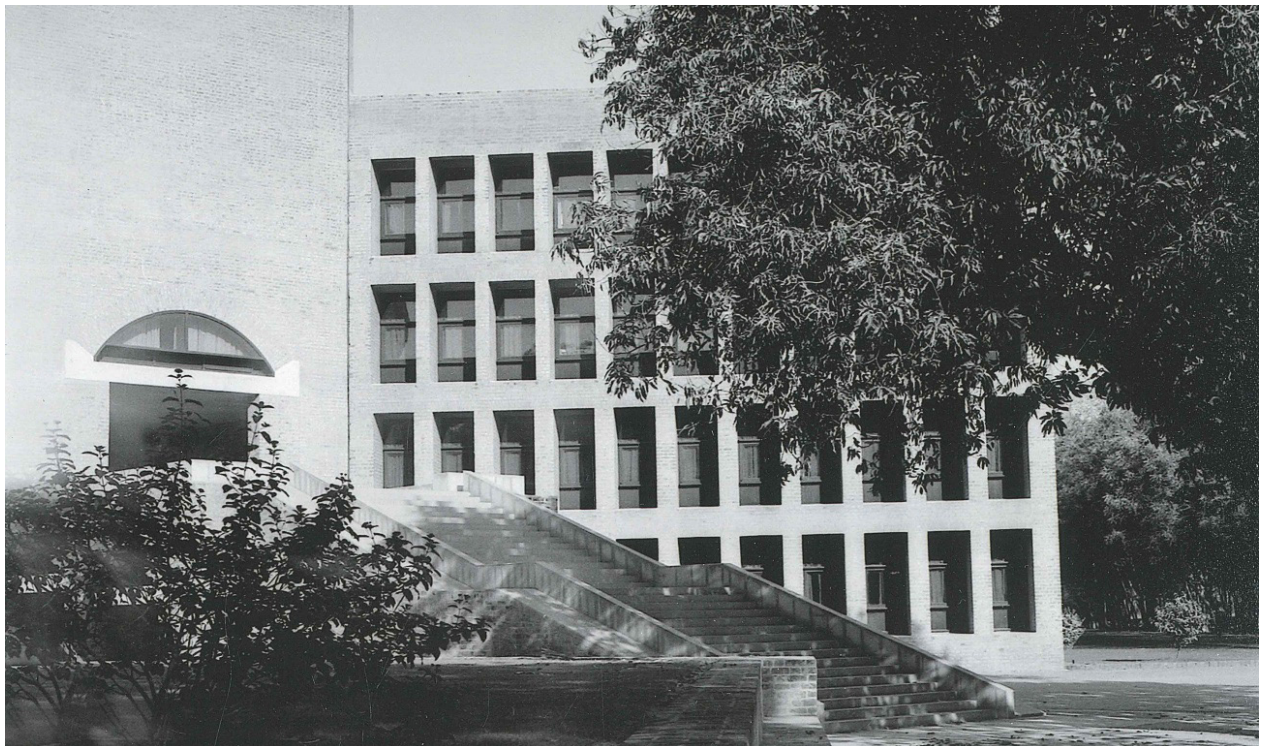


3. A close up of the ‘demonstration’ arch and the adjoining shed that Louis Kahn built, 1985 picture. Note the children all over the place!

The 'Harvard' Steps



4. Entrance lobby at the top of 'Harvard' Steps, 1980. Classroom complex visible in the background. The left border of the lobby shares a wall with the library; the administrative or faculty wings open off to the right.



5. 'Harvard' Steps, 1985.

The courtyard



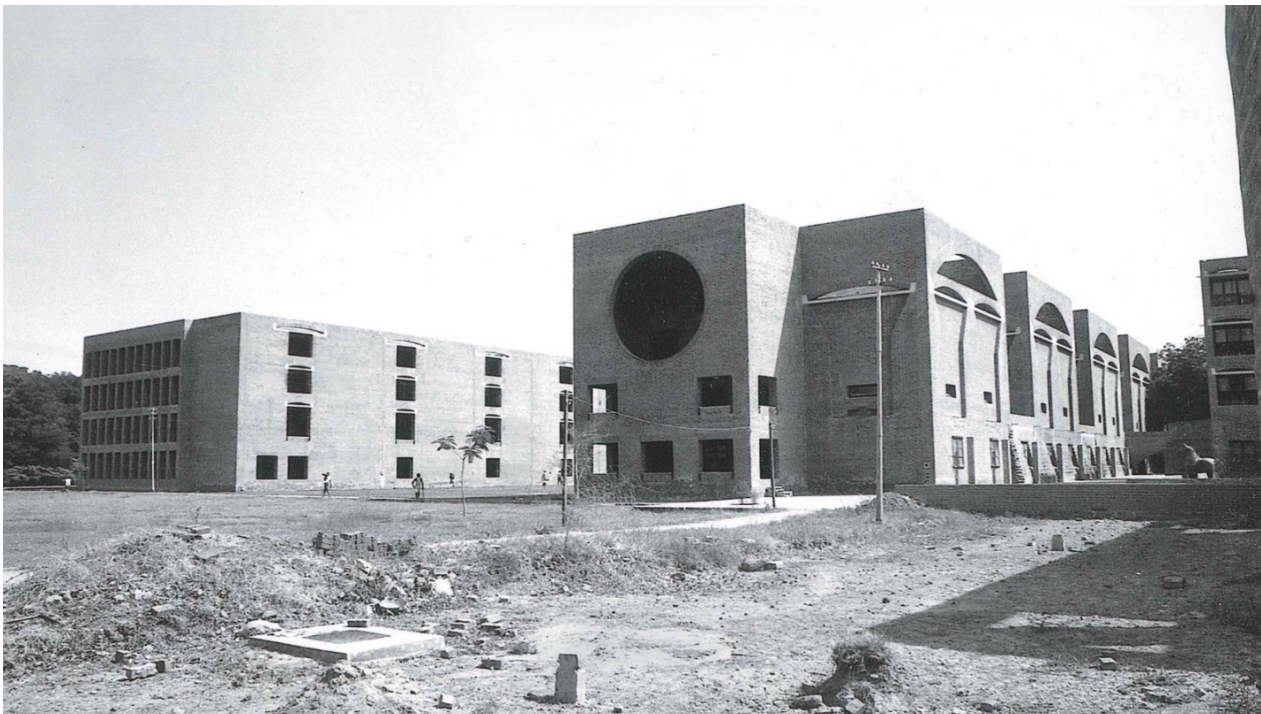
6. View of Louis Kahn Plaza from the west, faculty wings on the left, the Vikram Sarabhai Library in the middle and the Classroom Complex on the right, 1980. The foreground is covered by the Tower Lawn and part of the nursery today.



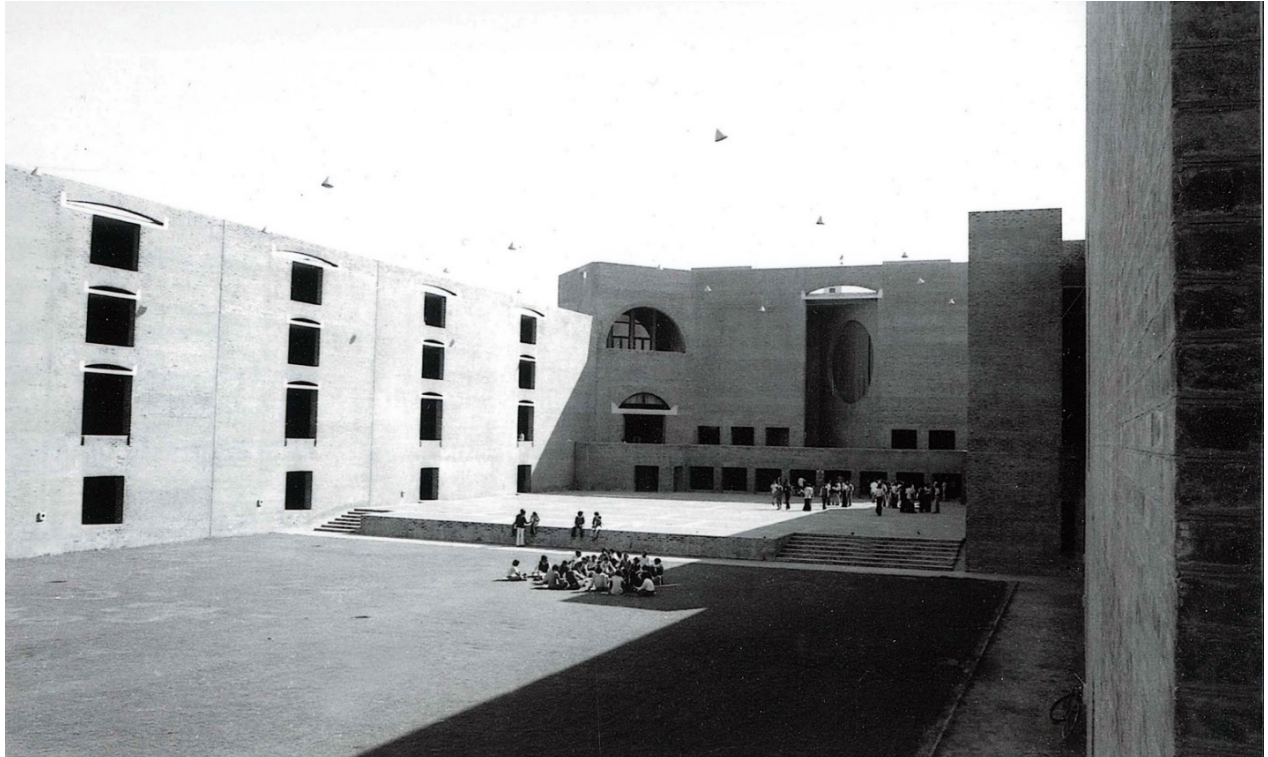
7. Louis Kahn Plaza, with faculty wings on the left and classroom complex on the right. The pathway along which two women are walking is today the busy path connecting the Main Campus to the underpass.



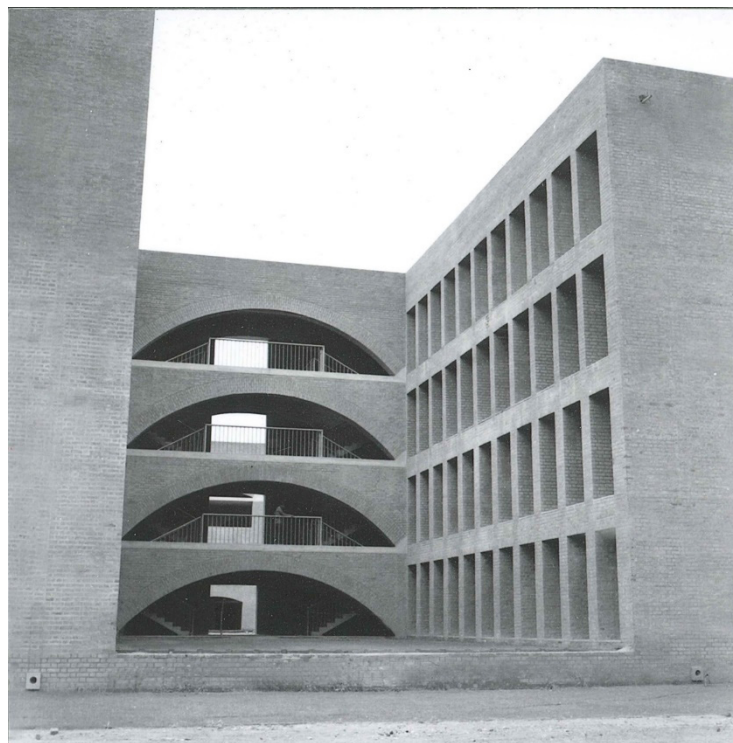
8. Another view of Louis Kahn Plaza as it would have looked in the late-1970s and early 1980s.



9. A view of the faculty wings and the classroom complex from the south west, 1980. Note the two terracotta horses that were installed at the entrance to the student mess (extreme right centre). The shadow of the mess is visible on the right foreground. The tall parapets on the terraces of the classrooms that are clearly visible (CR 6, 5, 4, 3, front to back) were shortened after the 2001 earthquake.



10. A lively Louis Kahn Plaza in 1980.



11. A set of faculty 'Wings', spread over four floors, is clearly visible on the right, 1974 (wings 3, 7, 11, 15, from ground to top floor). A similar set is on the left. In between is a neat view of the connecting corridors, with the classroom complex visible in the background.

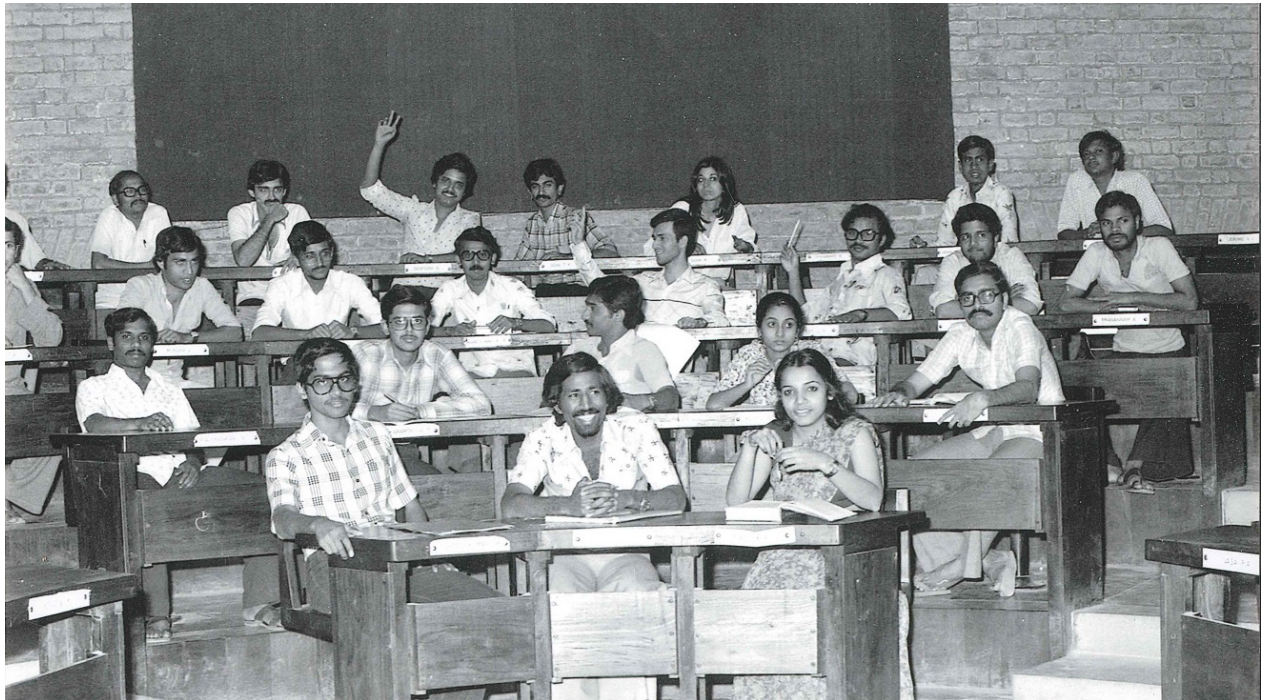
Classrooms



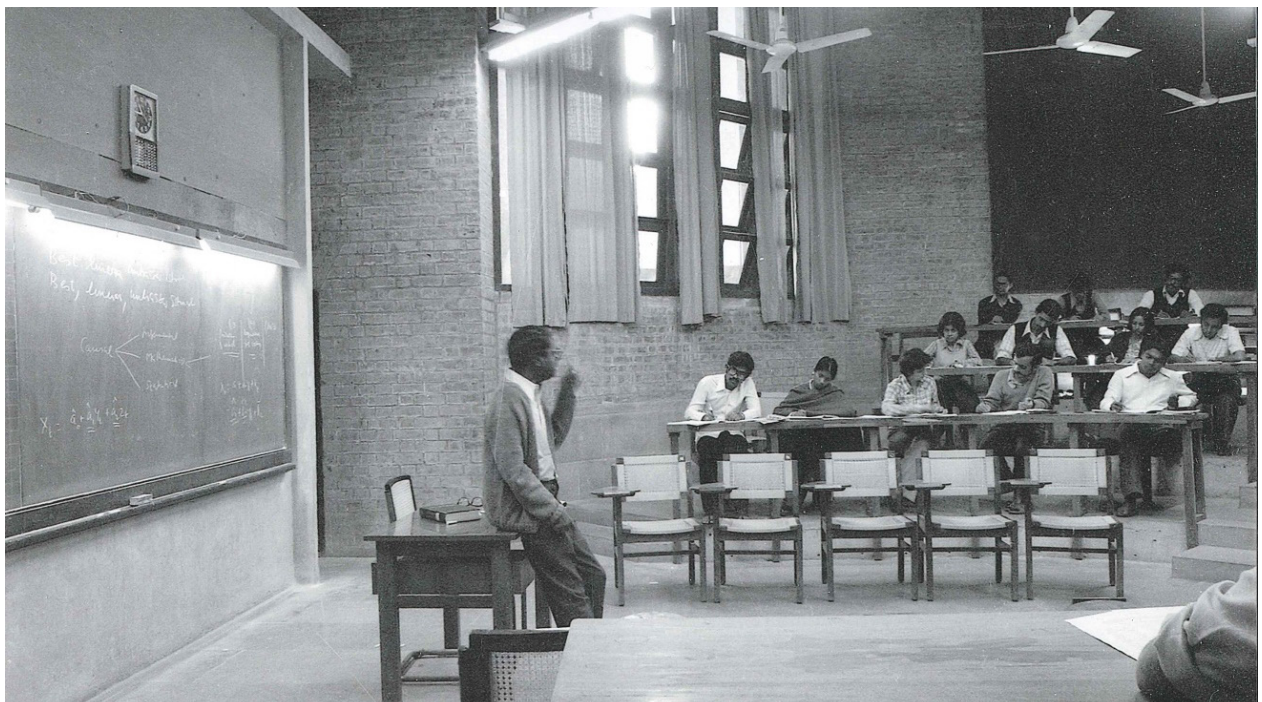
12. A break for tea outside Classroom 6, 1980. The tall person almost in the middle, with his back half turned to the camera and looking to the left is Prof. Labdhi Bhandari (1948-1988). Prof. Bhandari was a very popular teacher (Marketing), and his untimely death in an air crash was a deep loss for the institute. One of the classrooms is named after him.



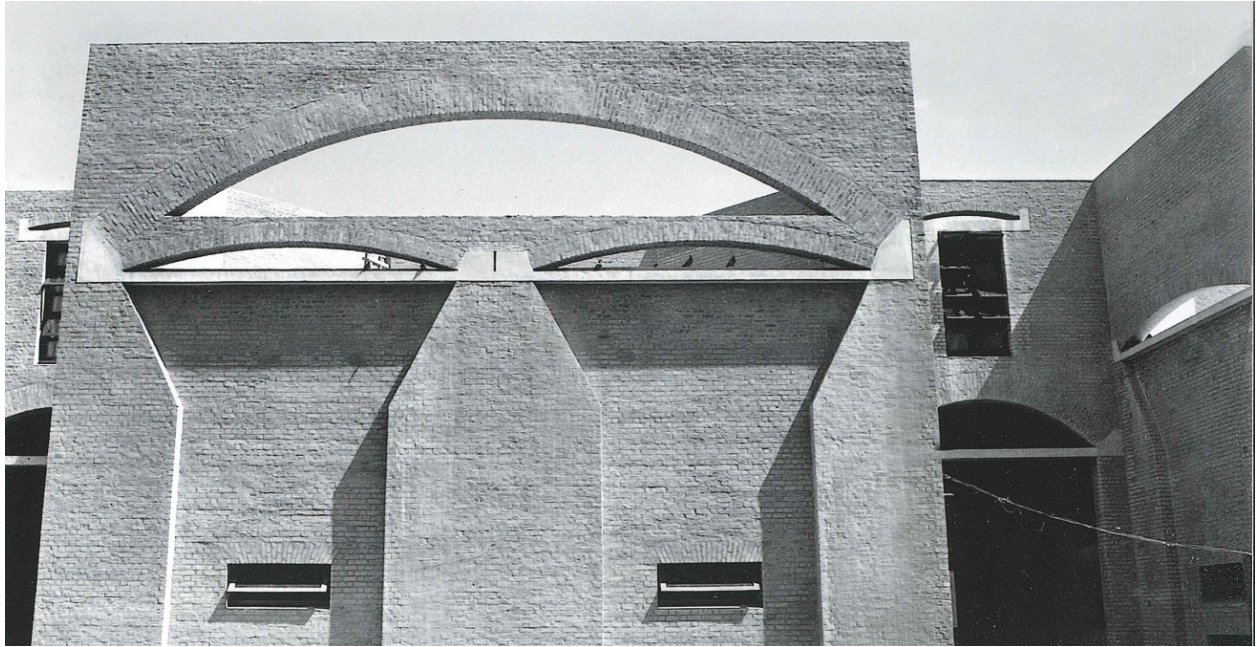
13. Class in progress, 1982. Just the blackboard and a chalk box on the table, but note the overhead projector screen (above the board) which could be pulled down if needed. Whenever it was needed, the projector would be pulled out of a cupboard behind the blackboard wall. The furniture is clearly visible--swivel chairs fixed to the ground, and tables.



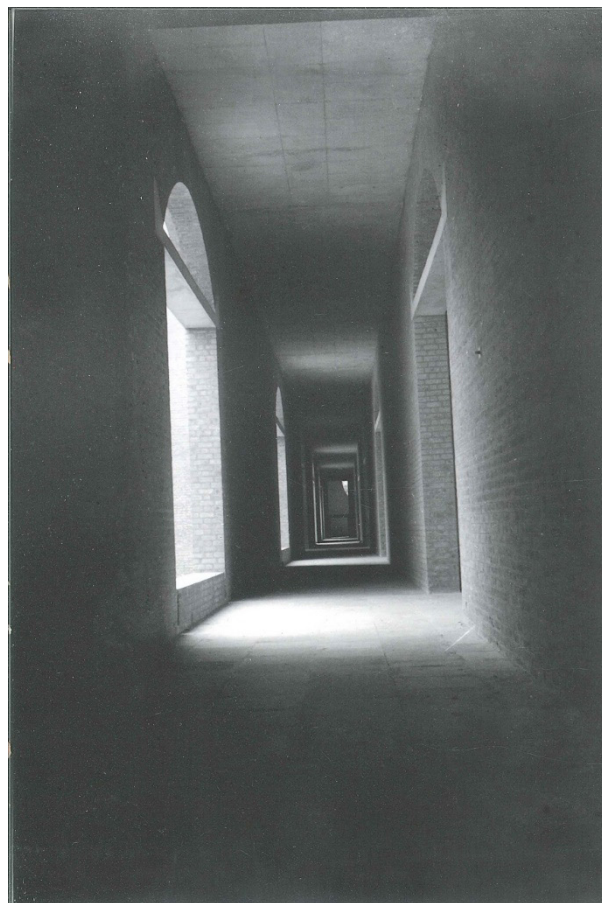
14. Class in progress, 1982. Note the tiered seating; the horse-shoe shaped seating has three segments--the middle segment is clear in this picture, the corners of the left and right segments are visible. The classroom was originally designed for 60 students, but in later years about 20 more seats were added at the back and sides. The design mimics the classrooms at the Harvard Business School, and was especially suited for the case discussion methodology that IIMA followed.



15. Class in progress, 1980. Note the extra chairs placed in front of the fixed seating--to increase the classroom capacity. The instructor stands in the well of the amphitheatre and has the freedom to move up and down the aisles between the seating segments or even behind the students. The instructor in this photograph is Dr. C. Rangarajan (born 1932), an eminent economist who later served as Governor of the Reserve Bank of India (1992-1997) and as Governor of the Indian state of Andhra Pradesh. He was honoured by the Government of India with the Padma Vibhushan, the second-highest civilian honour, in 2002.



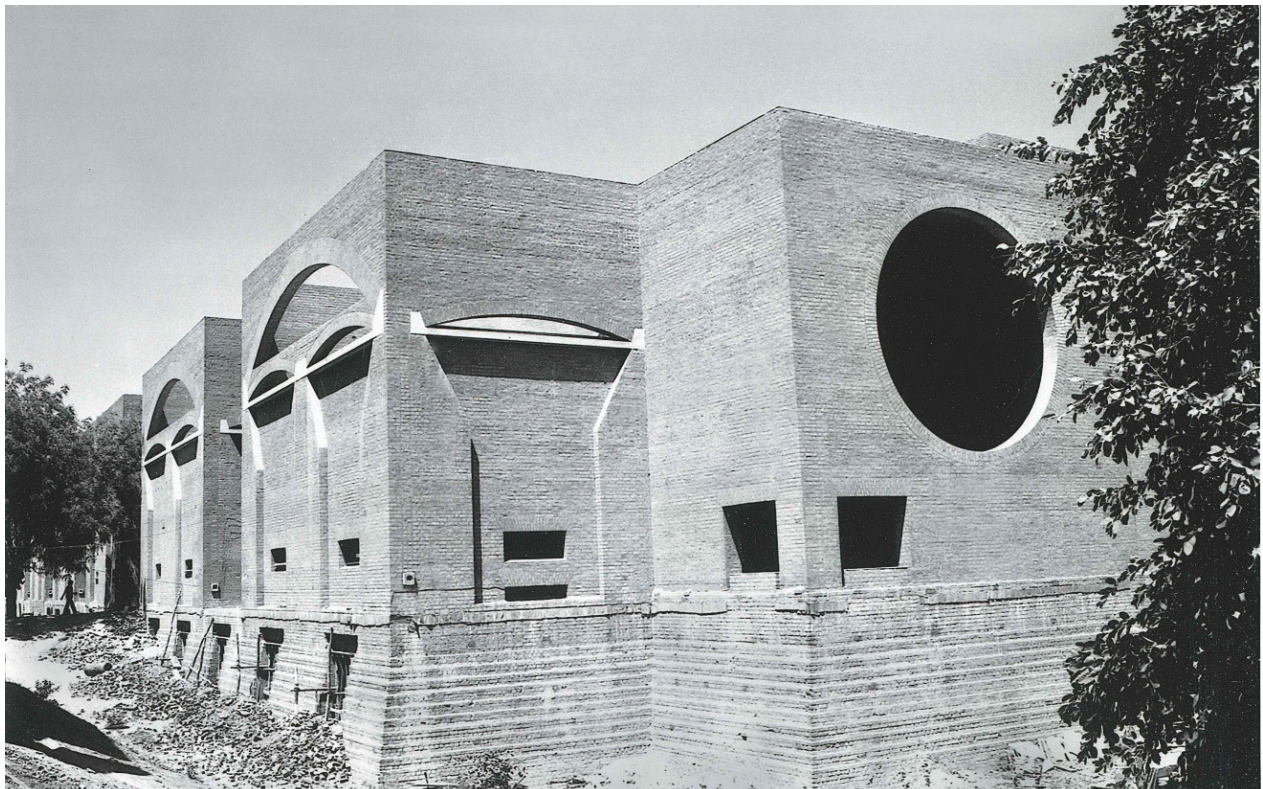
16. Classroom complex, rear view, 1980. Note the high parapet walls at the top which were shortened after the 2001 earthquake.



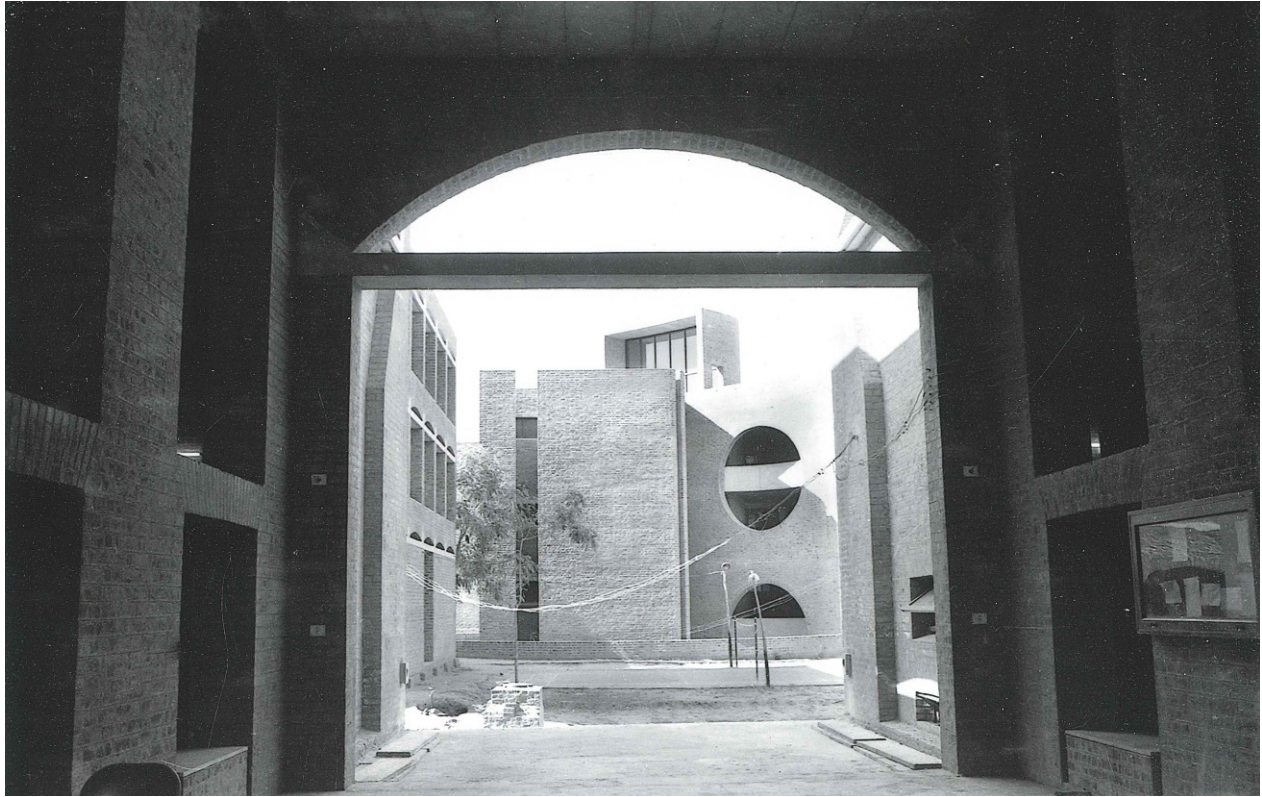
17. Classroom complex corridor, 1974. The ramp which leads up to the classroom level is at the far end behind the end of the corridor (not visible in the photo).



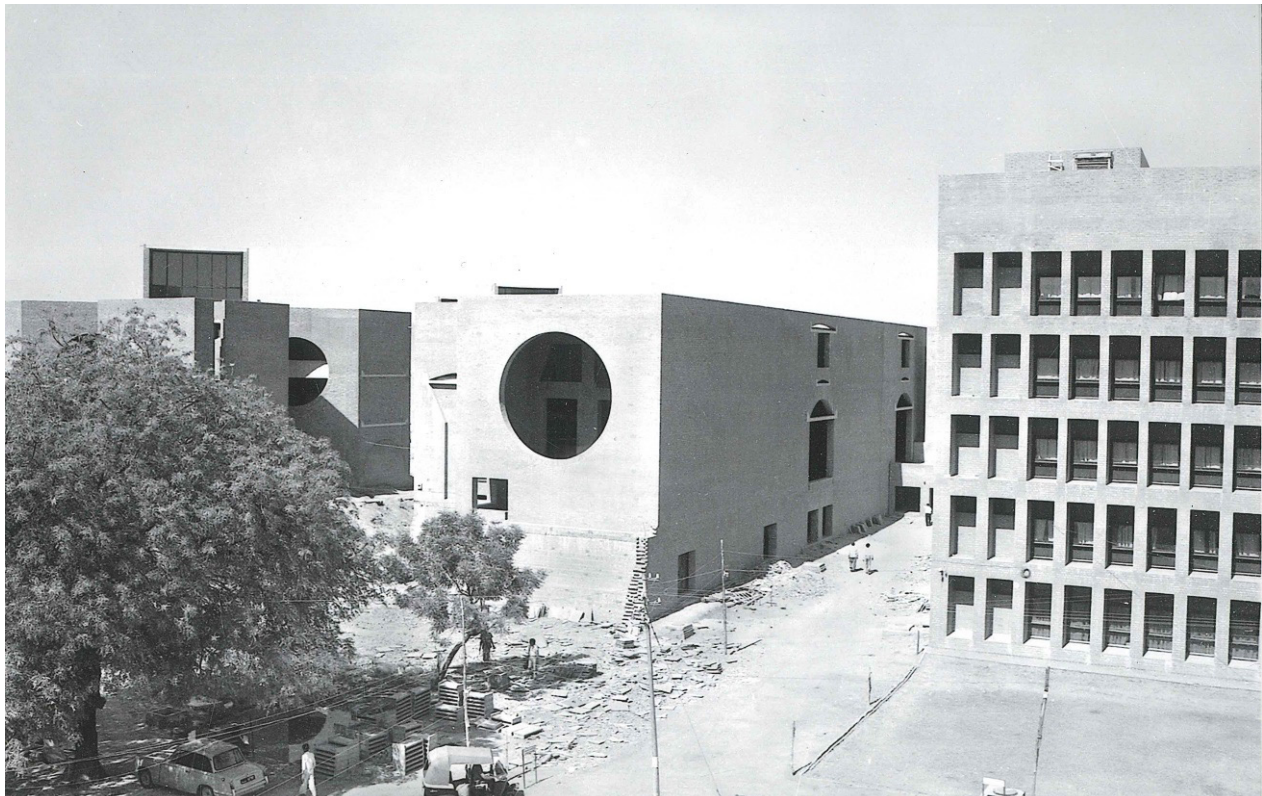
18. A 1980 picture of the view from between CR-3 (right) and CR-4, looking out on to the Louis Kahn Plaza.



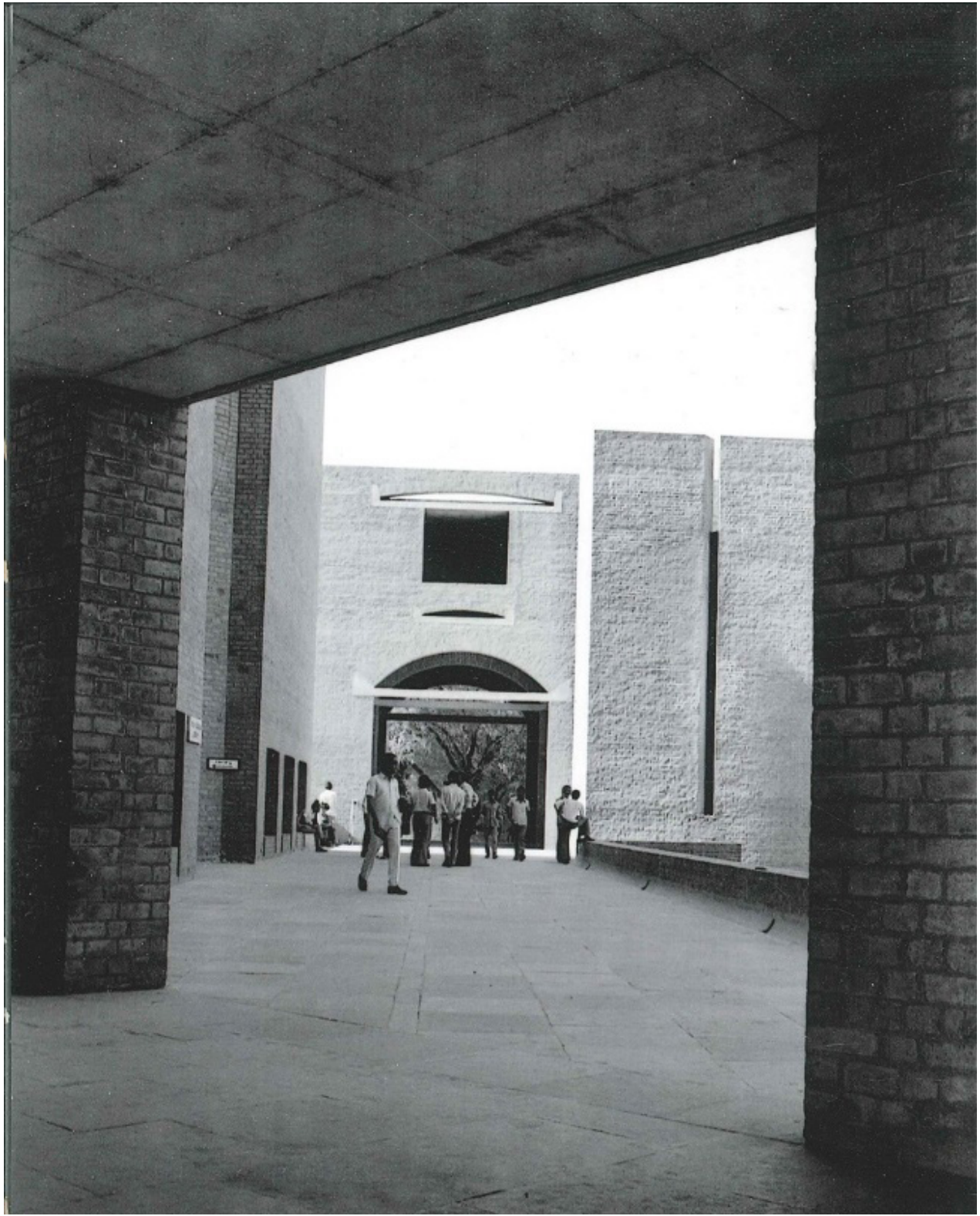
19. Classroom complex, view of CR-1 (middle and right; CR-2 is visible to the left). Note that the ramp leading up to the classroom complex is still to be finished.



20. Uncluttered view of Dorm 2 from the space between two classrooms, CR-3 (left) and CR-4, 1980, the vertical gap in the blank wall of D 2 was filled up in later years.



21. Classroom complex under construction (middle), eastern façade of library (right), first half of the 1970s. The ramp would have come up in the foreground a little later.



22. View from the entrance lobby above the 'Harvard' Steps, with the Vikram Sarabhai Library on the left, and the classroom corridor in the background, 1980.

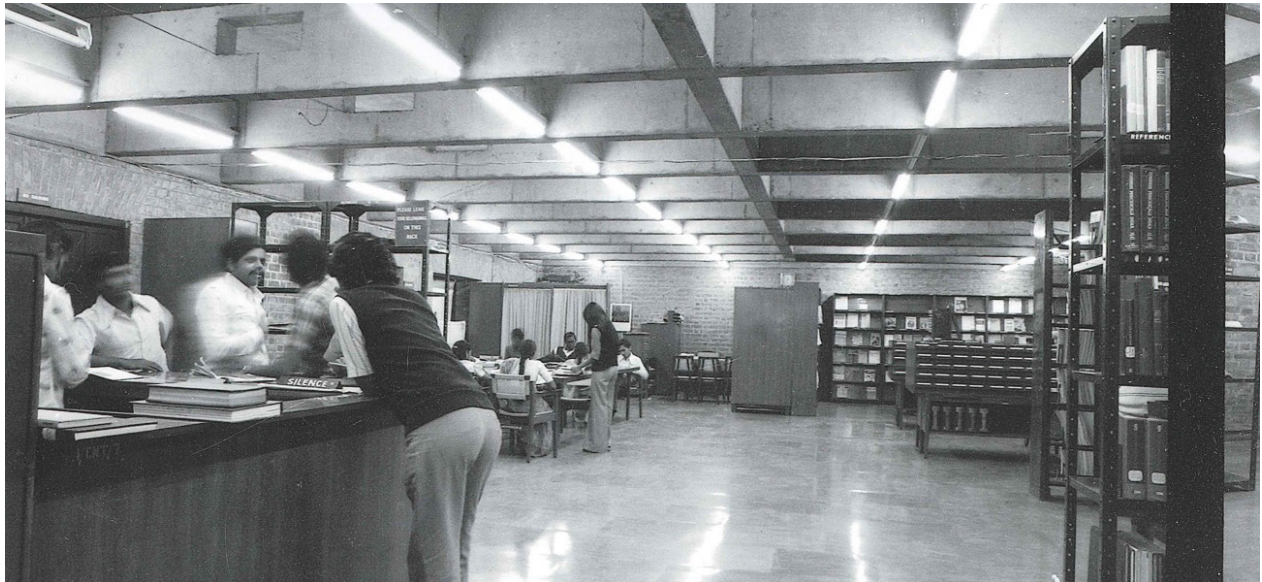
The Vikram Sarabhai Library

The first full year of the institute (1962-63) was spent in laying its foundations. Dr. Sarabhai played a key role in recruiting the initial group of faculty members. A librarian was also recruited and S. K. Seth, M.B.A. (Cleveland) was sent to the Harvard Business School to be trained in library management. He returned in June 1963. The Ford Foundation, New Delhi, which had played a key role in the early days of the Institute underwrote the expenses (most of them in foreign exchange) incurred in buying books. This support was critical in establishing the initial set of 9000 books--2000 acquired in 1962-63 and 7000 in 1963-64. The IIMA Library initially reported its acquisitions under four heads: books, periodicals, pamphlets (short brochures and other unpublished material), and company reports. The last item was important, since in those days, company-related information was difficult to come by, and one of the key functions of the library was to acquire information and reports on companies in both the public and private sectors. Apart from the 9000 books, the Library started with 400 periodicals, 800 pamphlets and about 120 company reports. The Ford Foundation supported the purchases over the next two years; in 1966-67, a small beginning was made in internal funding. Out of the Rs 317,000 spent by the library that year, Rs 275,000 came Ford Foundation grants, but Rs 42,000 were provided by the Government of India. The institute noted in 1970-71 that the Library was “substantially dependent on Ford Foundation” for its acquisitions, and so built up a Library Fund to take care of purchases once the funding from the Ford Foundation was phased out. The Shahibaug bungalow was the first location of the library; then, when the Housing Board flats were hired, a “hostel library” was started for the students. Slowly, the library shifted to the flats, and then to the campus--as and when houses were completed, they were allotted to the library. The shift to its current location happened over a few months in 1973.

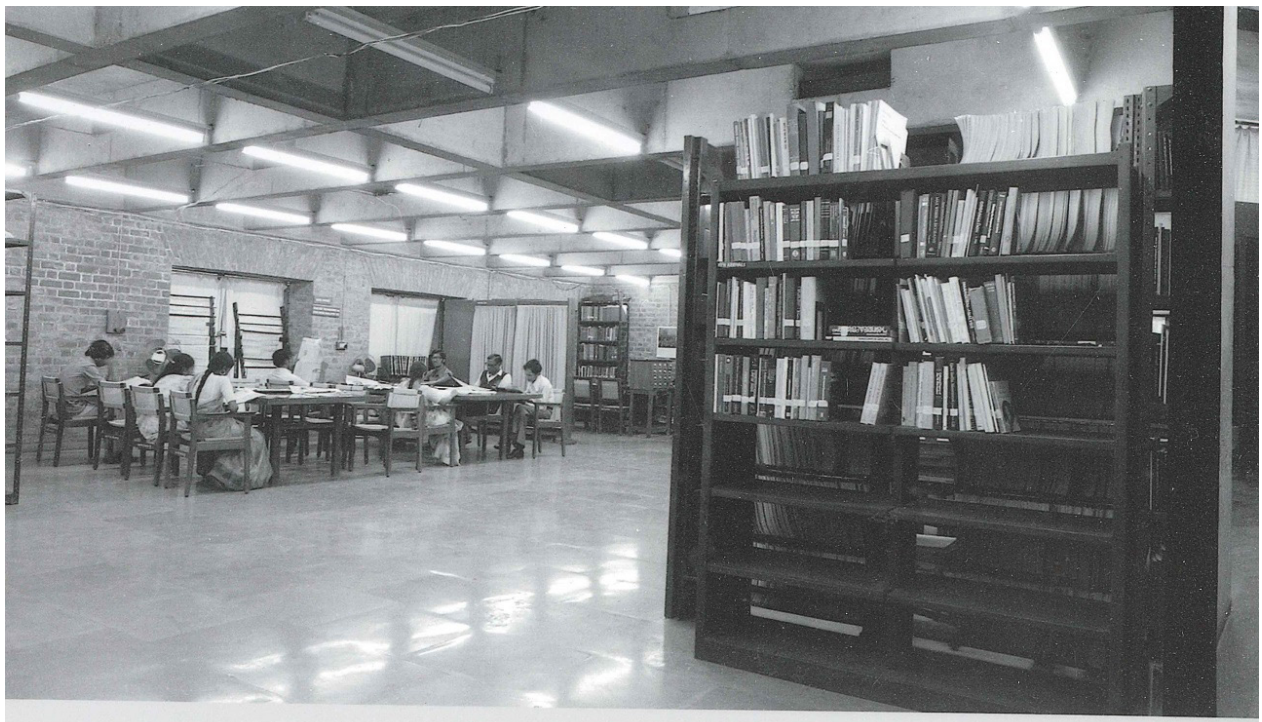
The library is named after Dr. Vikram Sarabhai. Dr. Sarabhai passed away on December 30, 1971. It was Prof. Ravi Mathai's idea to name the library after him. In a meeting of the IIMA Board of Governors on January 24, 1972, he reported that he had discussed the proposal with the Government of India which did not have any objection. The Board then resolved to name the library the ‘Vikram Sarabhai Library’. That was also the time when the iconic building which houses the VSL today was nearing completion. In 1973, the library's contents were moved to the new library from the temporary space they had been occupying in three of the faculty houses. On February 11, 1976, a bronze bust of Dr. Sarabhai was installed in the library. This was donated by Prof. Kamla Chowdhry¹¹ and

¹¹ Prof. Kamla Chowdhry (1920-2006) was the first faculty member to be appointed (in July 1962), and played a key role in managing the institute in its formative years. She designed the first executive education programme of the institute, the 3-Tier Programme in Management Development, in which the middle, senior and top level executives of a participating

sculpted by the renowned sculptor Sadashiv Sathe. P N Haksar, the Deputy Chairman of the Planning Commission at that time, unveiled the bust, and also delivered the first Vikram Sarabhai Memorial Lecture at the Louis Kahn Plaza.

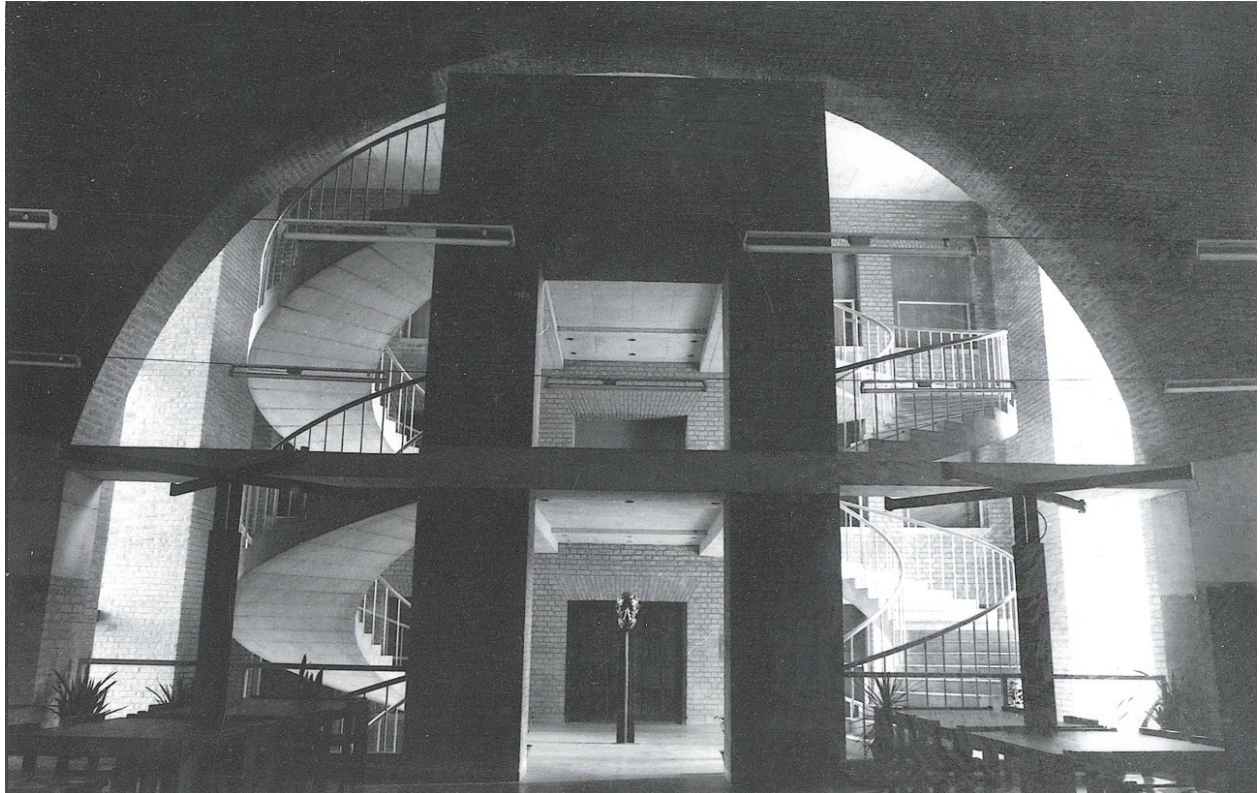


23. Vikram Sarabhai Library, 1980. The entrance is hidden on the left. The notice on the two open racks near the entrance reads, 'Please leave your belongings on this rack.' Note the SILENCE board on the circulation counter with people in animated conversation around it.



24. Another view of the entrance hall, Vikram Sarabhai Library, 1980.

organization were brought together. She left IIMA in 1972. For further details, visit <https://archives.iima.ac.in/faculty/Kamla-Chowdhry.html>.



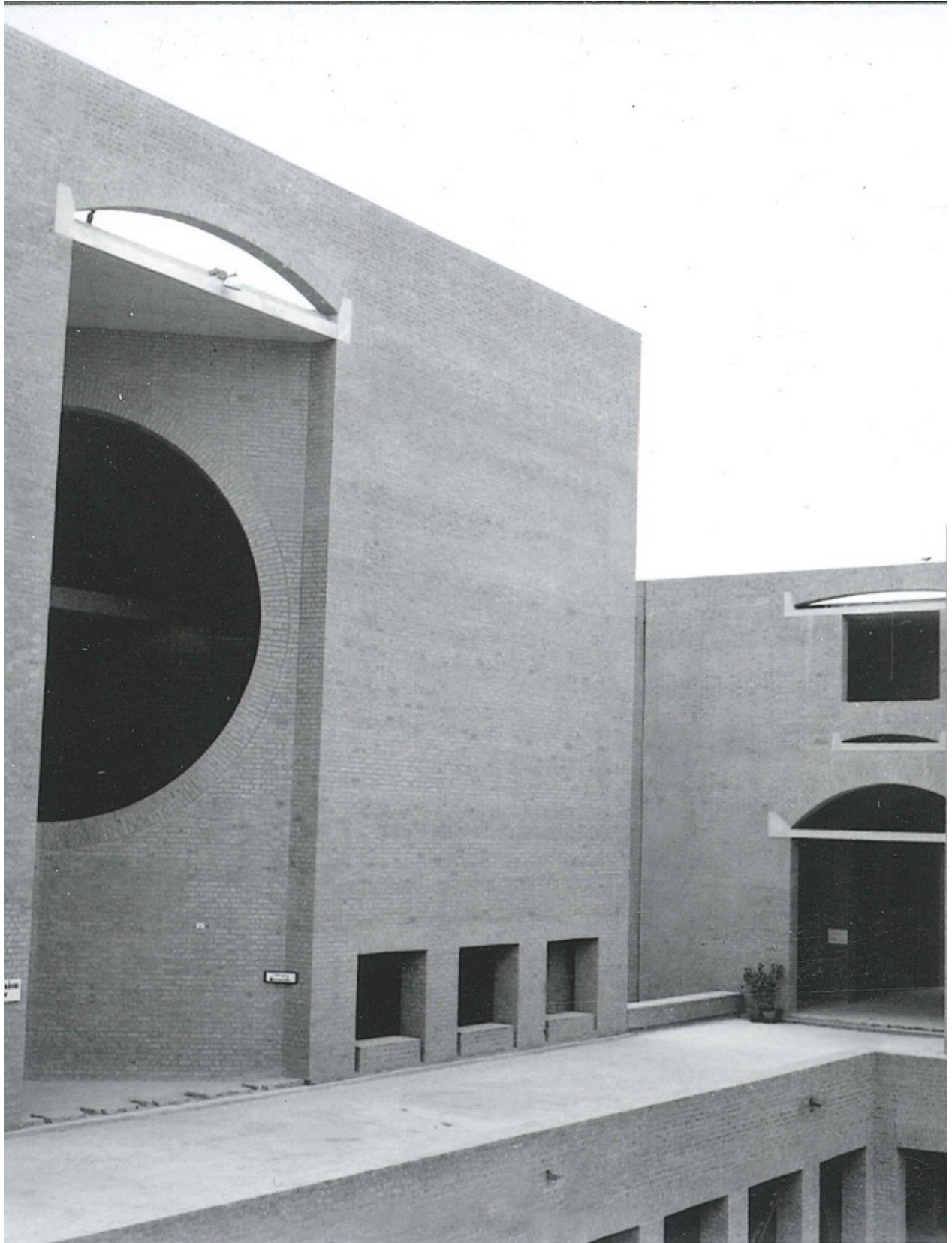
25. A 1980 photo of the bronze head of Vikram Sarabhai at Vikram Sarabhai Library, sculpted by Sadashiv Sathe, and inaugurated on February 11, 1976.



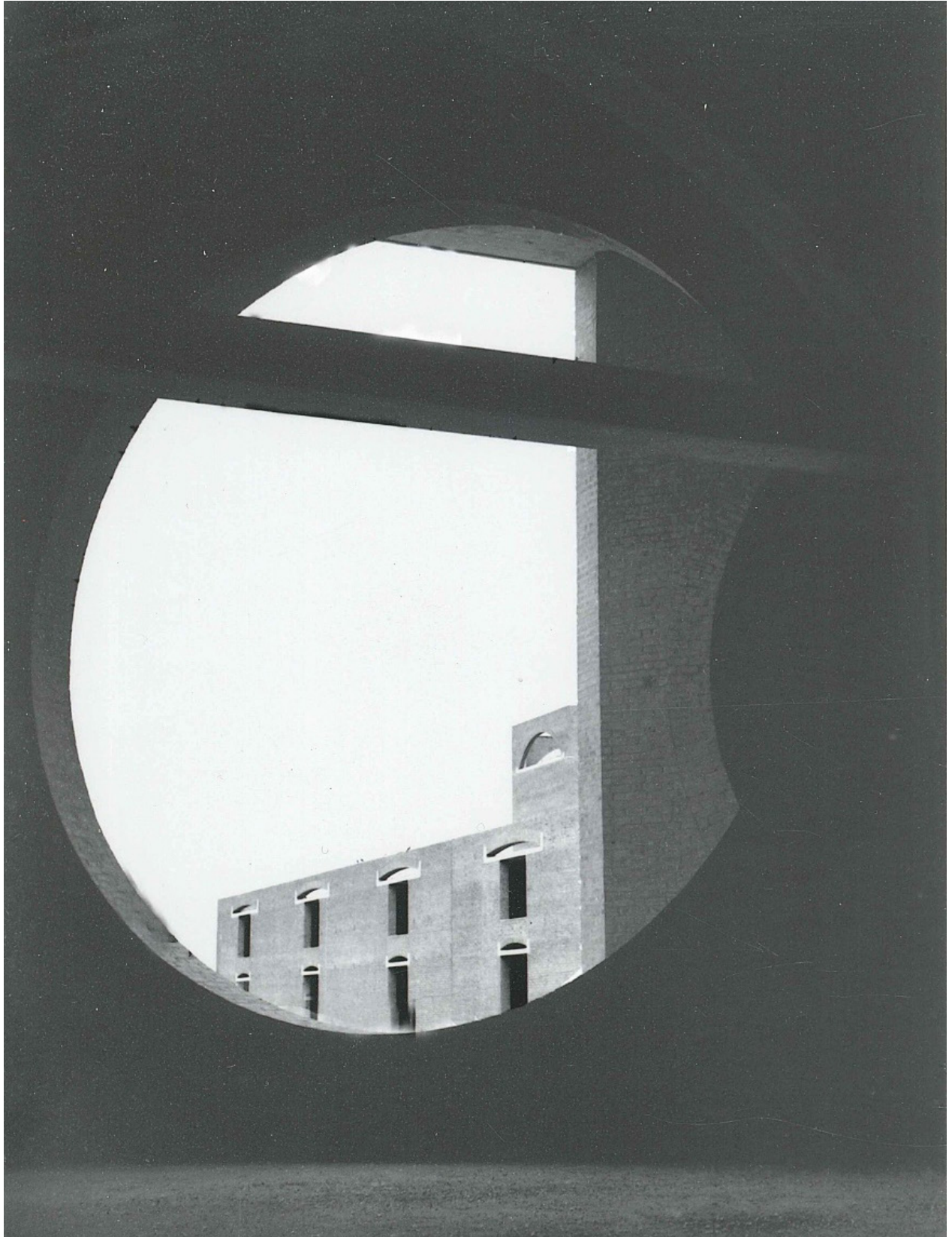
26. Corridor between the ground floor of the library (left) and the Louis Kahn Plaza (right), 1980. The tea counter, which was known as 'The Retreat', is hidden on the left inside the space projecting into the ground floor of the library; note people seated on chopped tree trunks which were used as stools during the 1970s and 1980s.



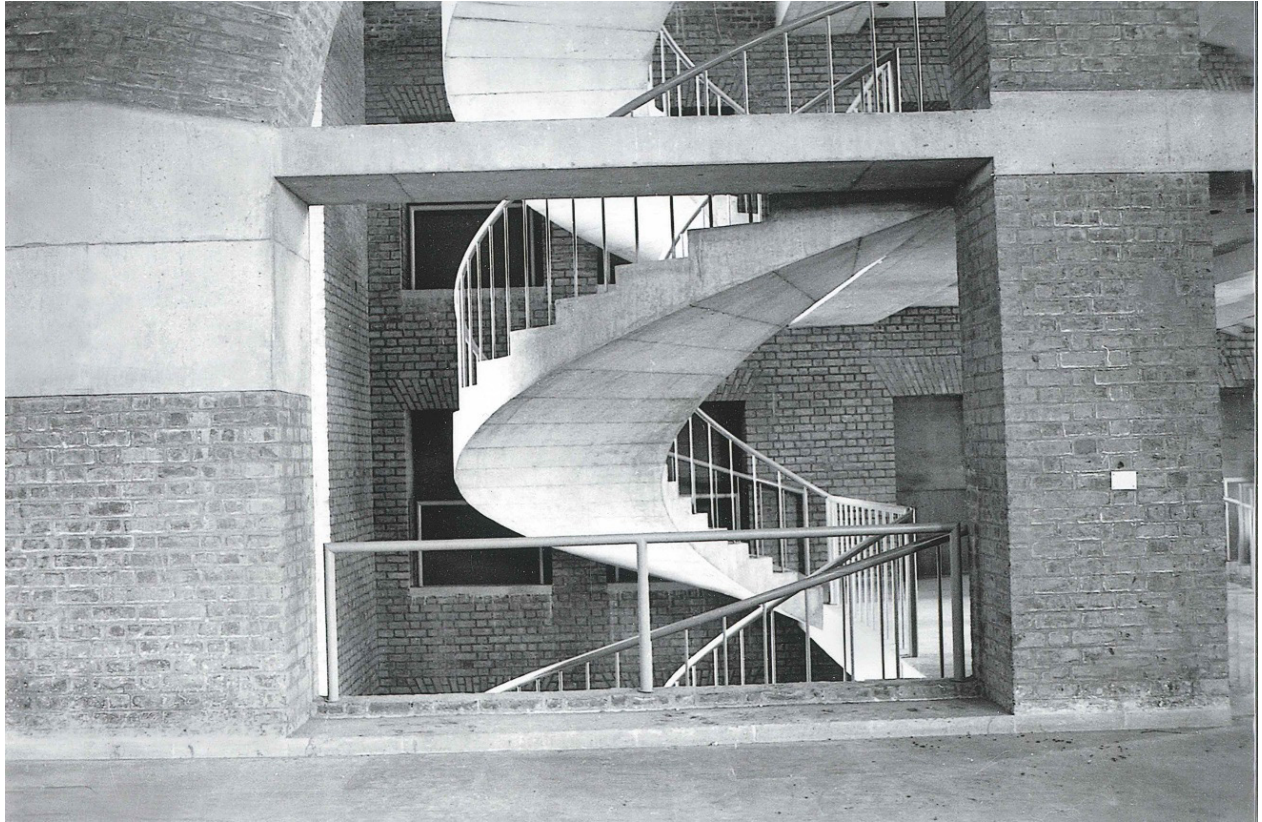
27. Vikram Sarabhai Library's central spiral staircase, perhaps one of the most admired features of the library, 1980.



28. Vikram Sarabhai Library, western façade (middle and left), 1974. On the right is the entrance to the classroom corridor.

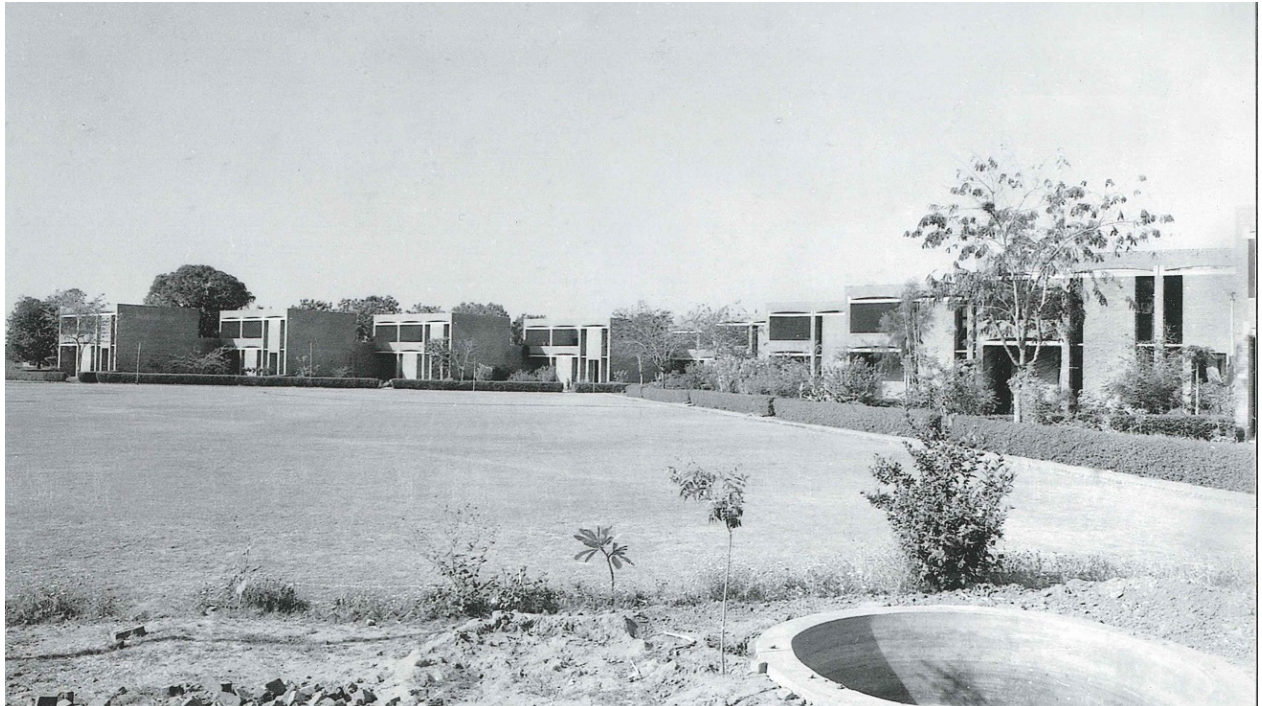


29. View of the faculty wings (top two floors) and the service tower behind them, through the circular window of the reading room of the Vikram Sarabhai Library, 1974. The window was shuttered with wood-and-glass panes later.



30. A view of the central staircase, Vikram Sarabhai Library, 1980.

Housing



31. Faculty residences, 1980.

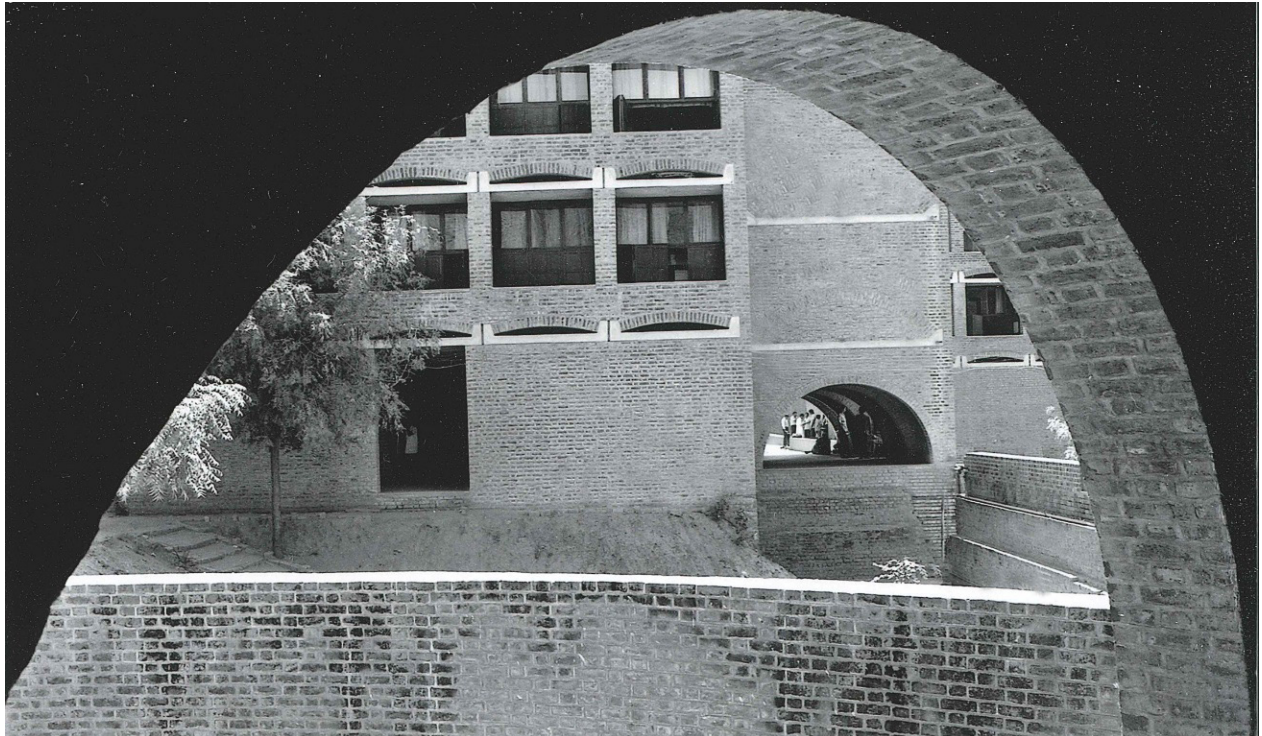


32. Faculty residences, 1980.



33. Faculty residences, 1980. Note the undeveloped land in the foreground.

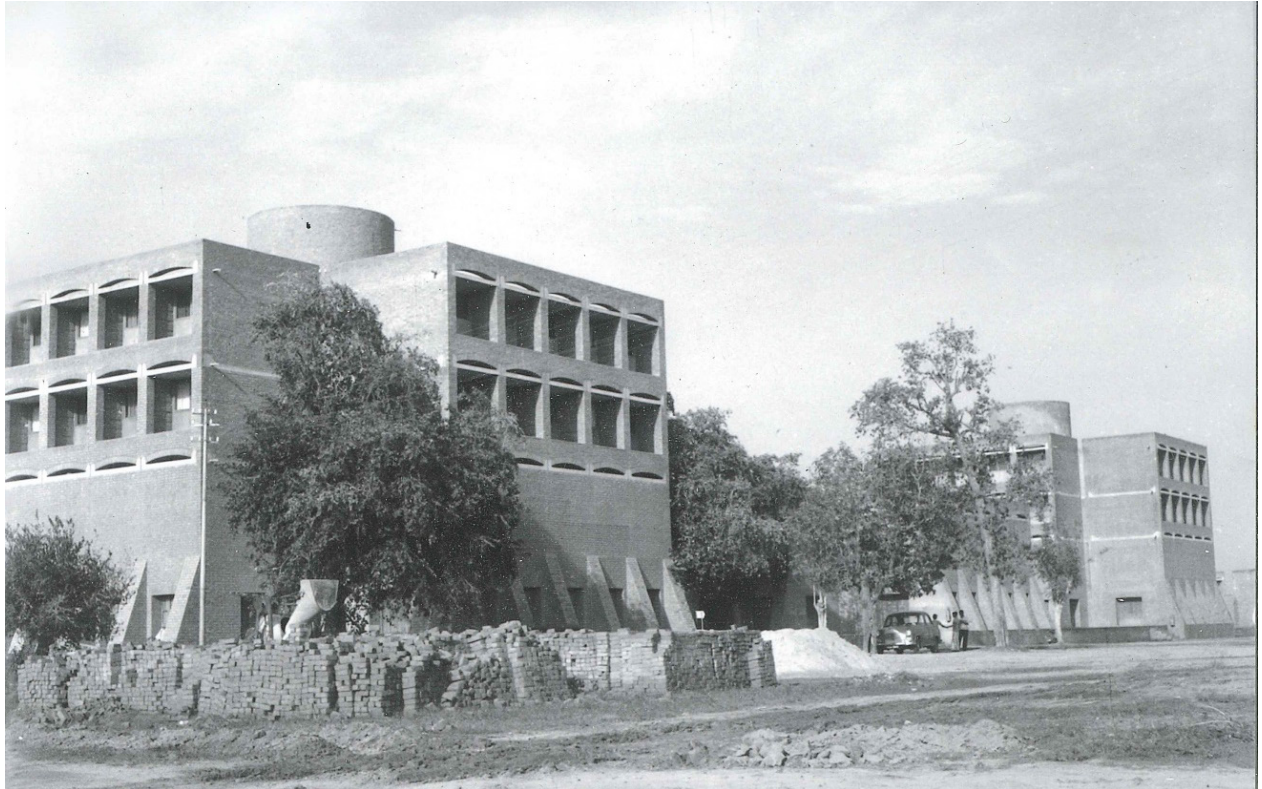
Dormitories



34. Photo of D 5, taken through the D 2 circular opening, with D 5's arched corridor visible on the right. 1966 to 1968 were busy years for D 5 and D 3, which is hidden to the right—both were ready by 1968. D 6, a portion of which is visible to the right of D 5 was completed in 1966. The level ground which connects the space in front of D 5 with D 3 today is yet to be readied at the time of this photo.



35. A close-up of the corridor of D 5, looking towards D 11, at the far end. D 8 (not in the picture), was the last dorm to be built on the Main Campus, and was declared completed only in 1981. Note the cobbler sitting on the floor a little to the right of the centre of the picture. Students did not have to go outside for footwear repair!



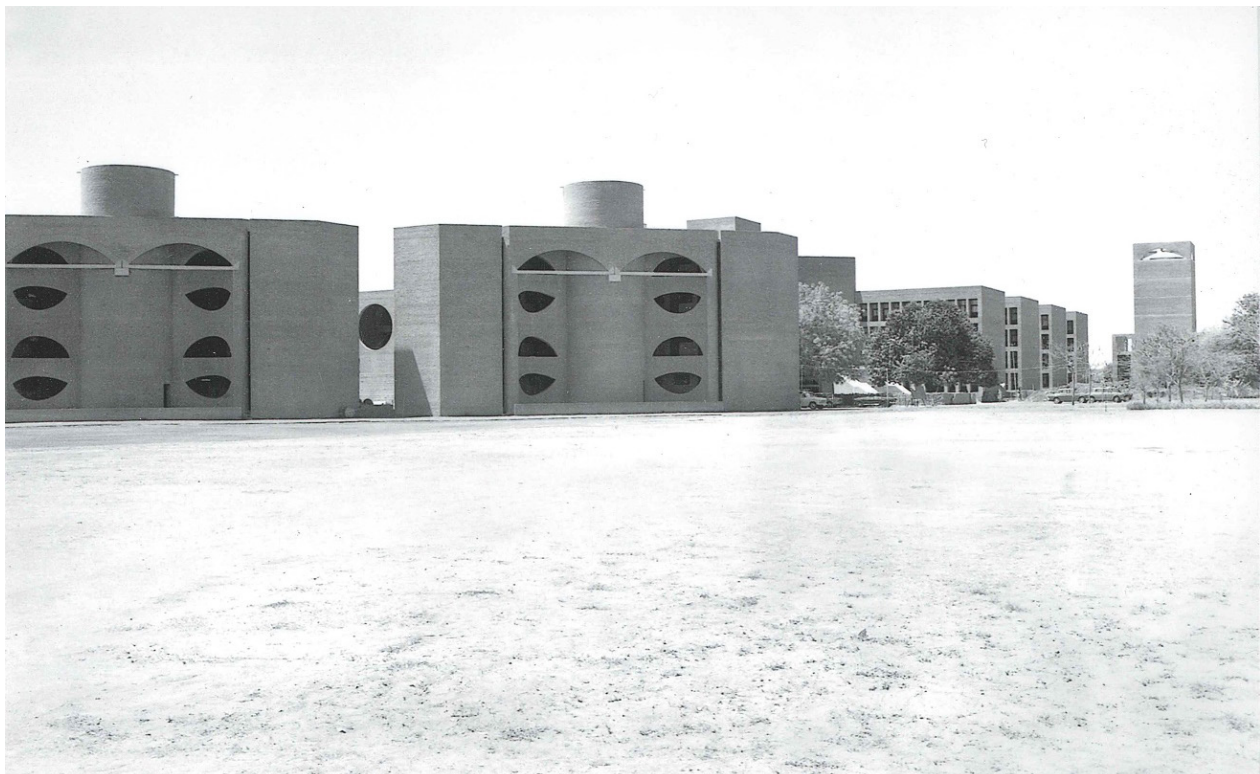
36. A view of dorm construction, with bricks and other material in the foreground; completed Dorms 6 (left) and 12 (right) visible.



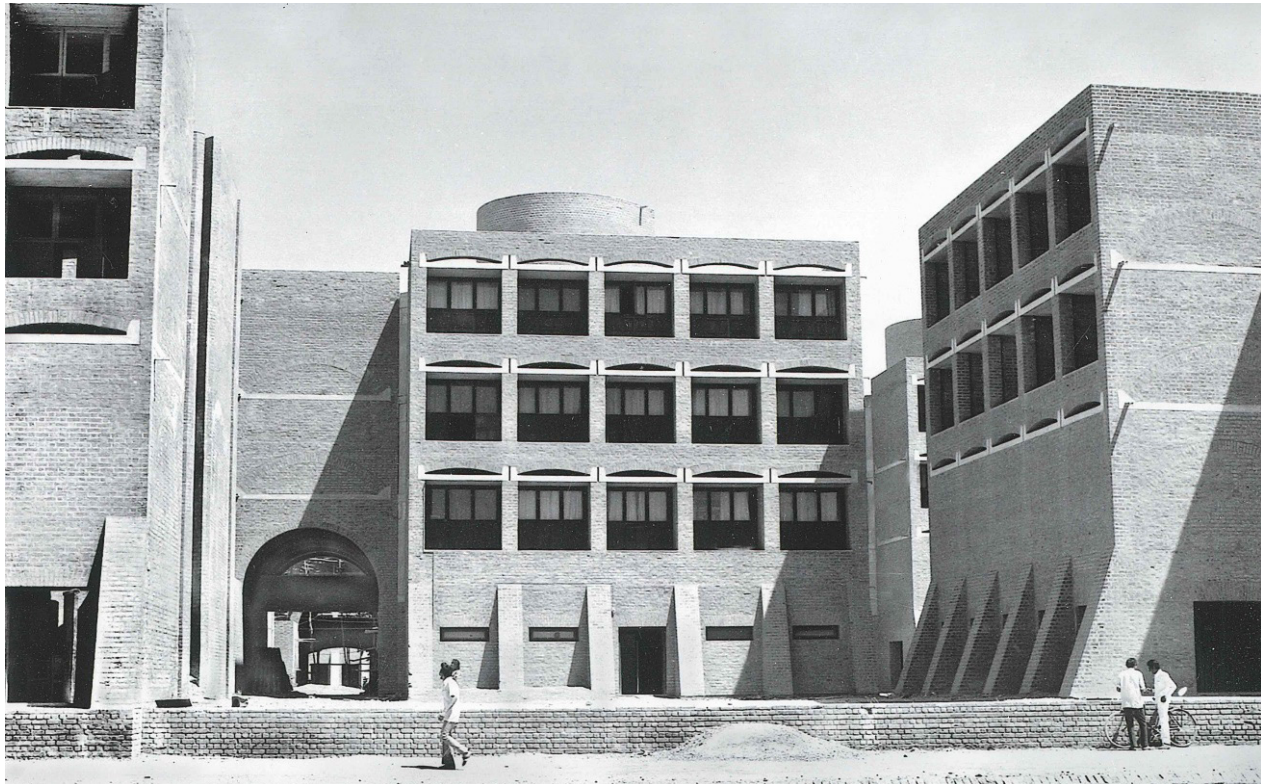
37. View of corridor running through the dorms (D 4 onward), photo from outside Dorm-2, 1985.



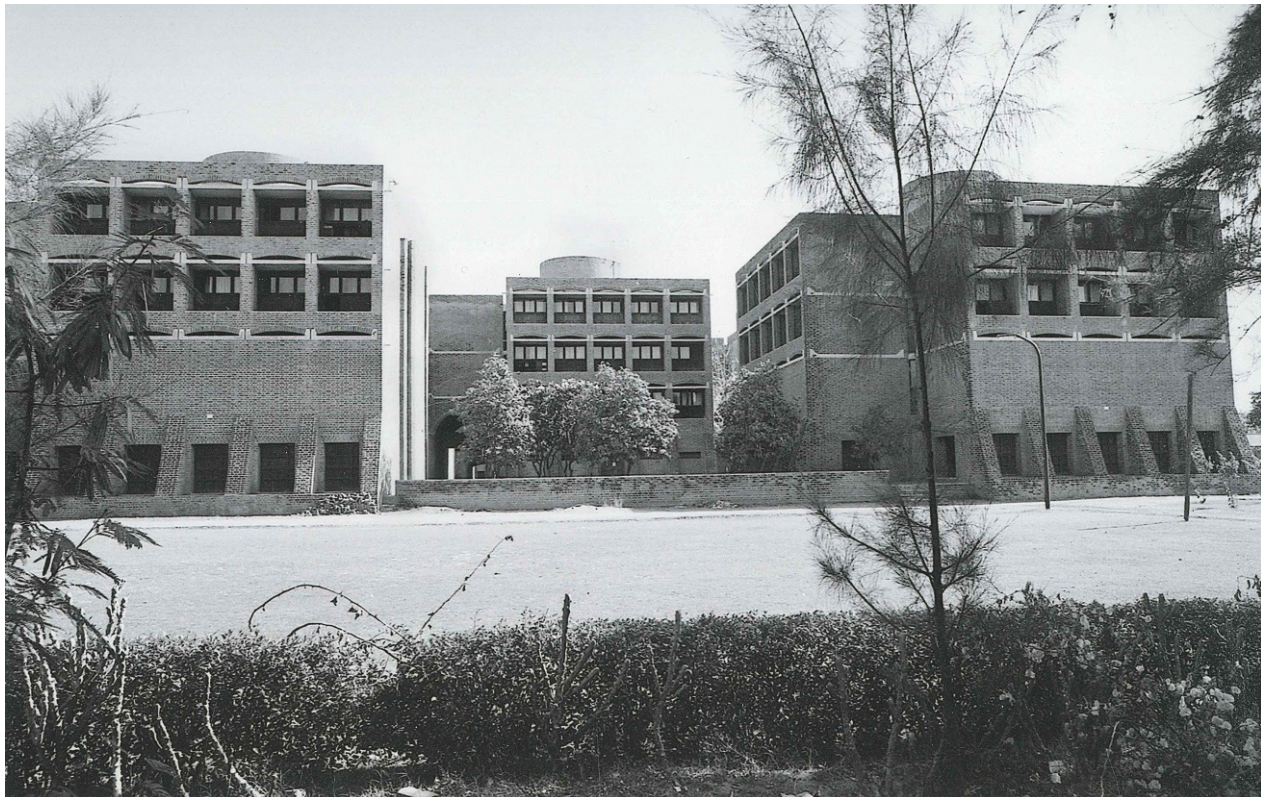
38. Dorms 16 and 17 to the right (completed in 1972) with a view of the library and classroom complex on the left. D 18 is yet to be built--it was completed in 1978.



39. A clear view (from left to right), Dorms 17 and 16, the 'Harvard' Steps peeping between trees, the famous 'Mango tree' and behind it the faculty wings, and the service tower, late 1970s.



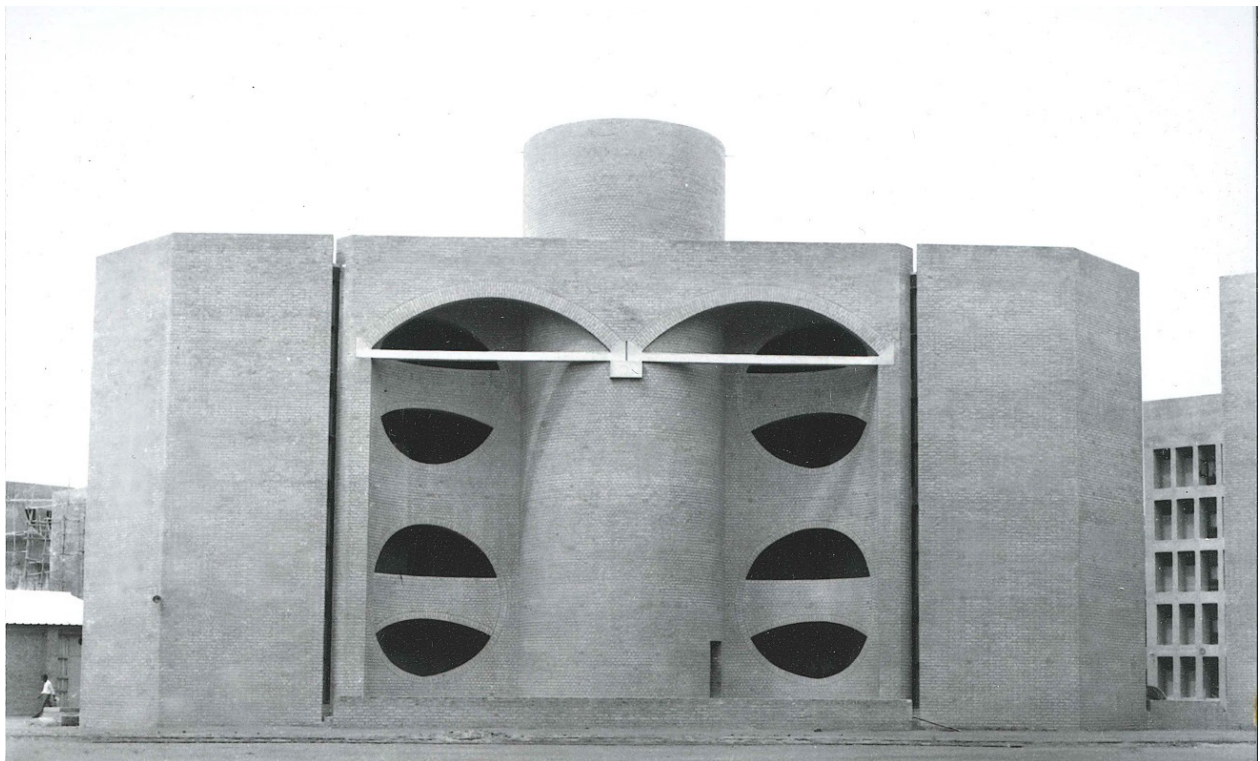
40. View of the corridor between D 9 (left) and D 11 (middle). At the end of the corridor, some construction work in D 13 and D 14 seems to be on. The former was completed in 1977 and the latter in 1975.



41. A 1985 view of the same corridor, obscured partly by a tree.



42. A 1980 picture of Dorms 3, 6, 9, 12 (back to front). The space on the left, which was used for convocations before the Louis Kahn Plaza came up, is now a beautiful lawn.



43. Dorm 17, 1974. The central half-cylinder is the staircase. The eastern façade of the library is visible on the right, in the background.



44. Dorms 6, 9 (unfinished) and 12 (back to front), 1967. D 6 and D 12 were the earliest dorms to be completed in 1966. Work on D 9 went on up to 1975. Note the staircase roof on the terraces of D 6 and D 12, with large glass panels to let in the morning light. These were damaged during the 2001 earthquake.



45. Dorm Terrace, The roof of the staircase, 1980.



46. The row of dorms, which divides the dormitory space from the faculty residential space, 1982. The space on the right was part of the excavations for the lake that did not materialize.



47. Dorms 16 (right) and 17, mid-1970s.

Landscape Development



48. Preparation of lawn in progress.

The land on which the Main Campus was built was generally flat, with a few cultivated patches, and some scattered trees, mostly mango. The institute first discussed a landscape development plan in June 1966 and requested NID to prepare a plan that would encompass roadside planting, planting for special purposes like shelter-belt creation, identification of species for garden areas, and details of the selected plants for Louis Kahn's approval. The preparation of this plan took nearly a year and a half. In the meantime, the institute appointed a gardener. Ram Ratan Pasi, a native of Sultanpur in Uttar Pradesh had migrated to Ahmedabad as a 17 year-old in 1963 and was working as a gardener on the ATIRA premises. One of the people he worked for happened to be Dr. Kamla Chowdhry. She invited him to join the new institute that was coming up just across the road. This was when Dorm 12 was being constructed--around 1965.

NID's plan for the first phase of landscaping was approved by the Building Committee on January 29, 1968. Earlier, five garden contractors, three of them from Ahmedabad, had responded to the tender that NID had put out. Only three submitted final proposals--Savalia Nursery and Rami Nursery gave a joint proposal, and Ramesh Nursery presented a second one. The work specified included preparation of rough lawns, planting of trees and hedges, and maintenance. The areas covered by this phase were: rough lawns (108,556 square feet); trees (480 to be planted and nurtured); and hedges (8225 running feet). Ramesh Nursery, with the lowest quotation of Rs. 34,908 (including maintenance for one year), was awarded the contract.

Kahn had suggested the hedges (around houses and on the borders) very early in the project (January 1964), and in a meeting on May 16, 1967 agreed to have Neem and the Mast Tree (asopalav) as the trees of choice. Ravi Matthai in the January 29, 1968 meeting suggested that other species (in addition to neem) might be considered. Finally, Cassia species and Kadamb were chosen for the courtyards, with neem and asopalav (Mast Tree) for the roadsides and other vacant areas. In the early 1970s, Madhusudan Mehta, a forester, reiterated the value of neem, and arranged for the supply of a large number of free saplings from the Forest Department.

In the meanwhile, the institute had organized its Estate Department, which was responsible for planting trees and raising nurseries, and other landscape-related work. In the early days, S. S. Ahluwalia of ISRO, and later P.P. Bhagwat, were the advisors on all matters of gardening. However, it was a team put together by Ram Ratan Pasi, the senior-most gardener at the Institute, that worked on adding a number of other flowering plants and shrubs and other species of trees, thus creating the greenery that one sees today. The team that assisted Ram Ratan for a long time comprised four gardeners who became quite well known on campus: Ram Pyare, Ram Dulari, Ram Bihari and Narpat Malla. Their legacy is now carried forward by a new generation of gardeners and assistants. The campus is today home to a wide variety of flora and fauna. A volume titled 'Natural World at IIMA', which was brought out as part of the golden jubilee celebrations in 2011 provides a checklist of 75 trees, 35 shrubs, 16 climbers, 11 grasses and sedges, and 82 herbs. In addition, it lists birds, mammals, reptiles and a small selection of invertebrates that are found on the campus. These lists are not exhaustive. Apart from the "approved" neem (*Azadirachta indica*) and Asopalav (*Polyalthia longifolia*), and Cassia sp. (most prominently *Cassia fistula*, the amaltas or garmalo, Indian Laburnum) and Kadamb (*Neolamarckia cadamba*, kadamb), the more important trees on the campus include the following (local name first, and botanical and English names in brackets): Siris (*Albizia lebbbeck*, East India Walnut), Saptaparni (*Alstonia scholaris*, Devil's tree), Jungli Gundi (*Cordia sebestena*, Geiger Tree), Kachnar (*Bauhinia purpurea*, Camel's Foot), Khakro (*Butea monosperma*, Flame of the Forest), Bottle brush (*Callistemon lanceolatus*), Sharu (*Casuarina equisetifolia*, Beef-wood Tree), Gulmohar (*Delonix regia*, Peacock-Flower), the nilgiri (*Eucalyptus globulus*), four Ficus species (*Ficus benghalensis*, Banyan; *Ficus amplissima*, White Fig; *Ficus racemosa*, Cluster fig; *Ficus religiosa*, Peepal), mango (*Mangifera indica*), Vakka (*Roystonea regia*, Cuban Royal Palm), Jamun (*Syzygium cumini*, Java Plum), and Desi Badam (*Terminalia catappa*, Indian Almond). The Copper Pod (*Peltophorum pterocarpum*) is common along the avenues on the campus; in addition, there are a number of common garden tree species like banana, pomegranate, sapota and drumstick, and flowering trees like Champa (*Plumeria* species, frangipani and pagoda).

3

ANANT RAJE: 'CONTINUATION OF A LANGUAGE'

Anant D. Raje (1929-2009) contributed significantly to the development of the Main Campus of IIMA, first as the on-site architect representing Louis Kahn, the principal architect of the Main Campus, and later, with his own creations. Notable among the latter are the students' mess, the Kasturbhai Lalbhai Management Development Centre, and the Ravi J. Matthai Auditorium. A graduate of the Sir J.J. School of Art (1954), Raje moved to Ahmedabad in 1957 and worked in partnership with the noted architect Balkrishna V. Doshi. Raje then worked with Louis Kahn at his Philadelphia office from 1964 to 1969, before returning to India to oversee the design and construction of the IIMA campus. After Kahn's death in March 1974, Raje became IIMA's lead architect, and was associated with IIMA till 2003. In addition to his work at IIMA, Raje designed a number of other buildings through his independent practice. He also taught at the School of Architecture at the Centre for Environmental Planning and Technology (CEPT), Ahmedabad and at various universities in Europe, the United States and India. He was the recipient of the Indian Institute of Architects' Baburao Mhatre Gold Medal (1994) and CEPT's Architecture Distinguished Professor Award. The works captured by Pranalal Patel and presented in this volume include the Kasturbhai Lalbhai Management Development Centre (KLMDCC), named after one of the founders of IIMA, Kasturbhai Lalbhai (1894-1980), and the Students' Mess.

'Management development' refers to the in-service training of working management professionals from the private, public or non-profit sectors. The residential programmes these executives attended were of varying durations; some lasted just a few days, others went on for a few weeks. IIMA, in fact, began with such a programme in January 1964, a few months before it launched its long-duration postgraduate programme. Since it did not have residential facilities at that time, IIMA held its programmes in hotels in cities like Agra and Srinagar. The initial plans for IIMA do not show a separate hostel for the executives, though at one point of time, some of the dormitories were meant to house executive development (a synonym for management development) programme participants. Later, a plan for a 'management development block' was developed and approved by the IIMA Board in July 1973.

Raje developed the initial ideas for this block and discussed them with Louis Kahn--as he notes in *Anant Raje, Architect, Selected Works 1971-2009*, "The early concepts were discussed with Kahn, but the later design and development were done by me" (AR, 31). As the Management Development Centre was nearing completion, Kasturbhai Lalbhai, who had played a key role in establishing and nurturing the institute passed away. He died on January 20, 1980, and the IIMA Board, in its meeting of April 8, 1980, decided to "rename the Management Development Centre at the Institute which is at present under construction, in memory of late Sheth Kasturbhai Lalbhai." The KLMDC was formally inaugurated in 1981. This complex has a built-up area of 80,000 square feet, and accommodates 64 rooms to house executive education participants, a classroom, a kitchen and dining area, syndicate rooms, and lounges. An annexe, with a built-up area of 18,000 square feet was added in 1987-89. The annexe has a classroom, two conference halls, four syndicate rooms, and office spaces. The KLMDC was also the temporary location of the Vikram Sarabhai Library when it was being renovated in 2016-18.

Raje visualized the management development centre as an entity that would conform to the idiom that Louis Kahn employed. "The making of openings in brick masonry follows the previous order in Kahn buildings. The exposed brick masonry bearing wall is the predominant architectural decision" (AR, 31). However, he drew on local imagery to describe the structure: "The building is basically an enlarged house, like a *haveli* or a *mahal*. A central courtyard, flanked by two rows of rooms with a corridor that serves the rooms, connects on the front side with the classrooms, dining halls and lounge" (AR, 31). With the passage of time, the locus of executive education has shifted to the New Campus and the International Management Development Centre. The maintenance of the KLMDC has also demanded more attention. Yet, it remains an important stage in the evolution of the Main Campus, signalling the transition from Louis Kahn to his successors.

The kitchen-dining block, which should have closed off the courtyard in the Main Complex, was shifted out during Louis Kahn's last visit to the institute in March 1974, and its location finalized in January 1975. The power of the idea of the 'lake' can be appreciated from its persistence in a developmental sketch that Raje made in 1975--the 'LAKE' is clearly marked and a noting reads: "end dormitories [Dorms 1 to 3] that move away from the promenade, making way for the water." One can only speculate what it would have been like if the lake had materialized. The final design of the kitchen-dining block had two dining halls and two kitchens (initially to separate vegetarian dining from non-vegetarian, and later used as student and staff dining halls) on the ground floor. The corridor in front of the two dining halls was designed to be a meeting and discussion space. On the first floor, a faculty mess was created. This space today is used for staff recreation. The complex was completed in 1978.



49. Student mess, designed by Anant Raje and completed in 1978. View from the path connecting faculty residences with the classroom space (left to right), 1980. Note the features that Kahn had pioneered: the T-openings on the left wall, the segmental arches with concrete ties



50. Student mess, dining hall, 1985. Note the clerestory windows just below the roof, making the dining hall a well-lit place.



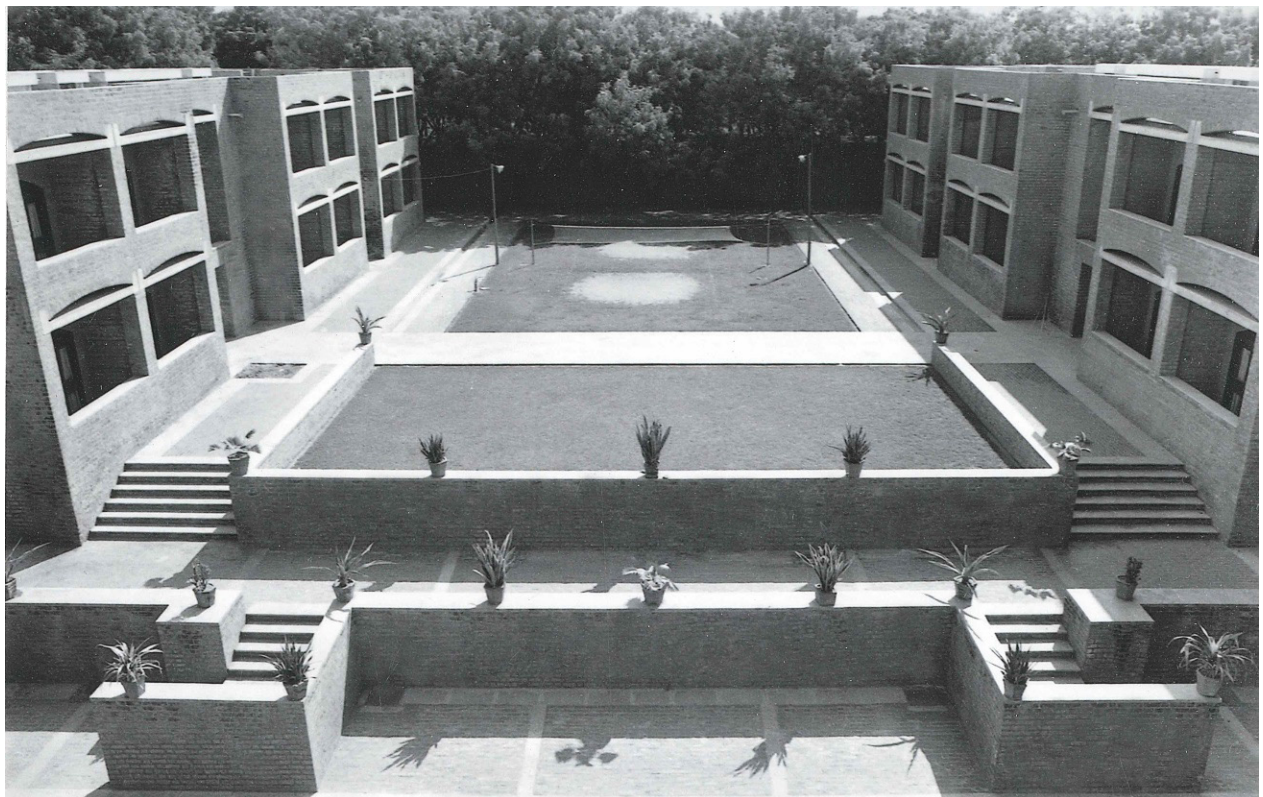
51. Kasturbhai Lalbhai Management Development Centre (KLMDC), formally inaugurated in 1981. Entrance hall; a bust of Kasturbhai Lalbhai is on the left, 1982.



52. KLMDC dining hall, 1982.



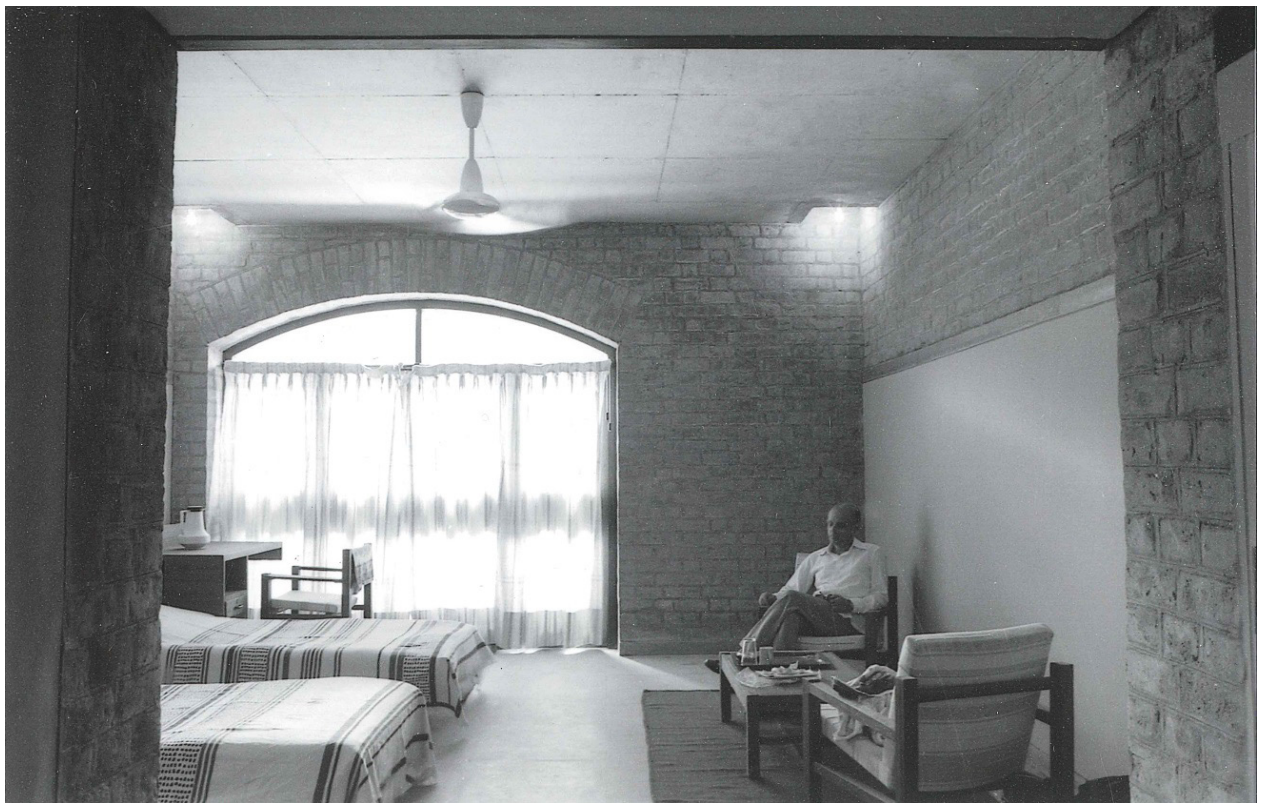
53. Seminar room on the ground floor of KLMDC. This picture shows a session in the third edition of a programme titled 'Women Managers: Issues of Role and Authority' in progress, 1982. The instructor (standing, extreme left) is Prof. Indira Parikh. Prof. Parikh worked in the Organizational Behaviour Area at the institute. More details can be found at: <https://archives.iima.ac.in/faculty/Indira-J-Parikh.html>



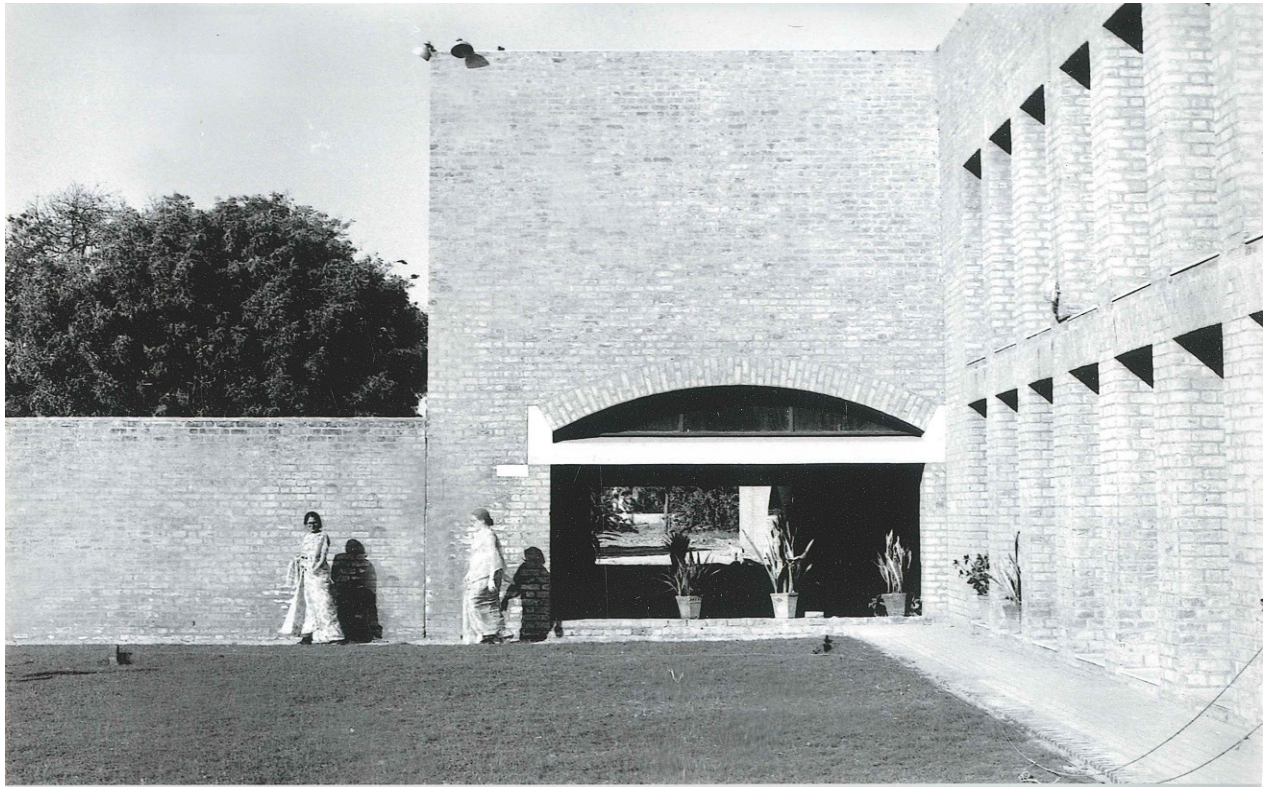
54. KLMDC, view of lawns between the room wings, 1982.



55. KLMDC, 1982. Stairs leading to the basement on the right.



56. KLMDC, room, 1980.



57. KLMDC, 1982. Entrance is hidden on the right. The open space visible in the middle behind the flower pots is today enclosed and has been used by a bakery-restaurant.



58. KLMDC, view of open space through an arch, 1982.

The outdoor art installations of 1978

The institute decided to install art work on the campus at the behest of Haku Shah (1934-2019), a noted artist. Shah was at that time installing folk art work in public places such as traffic junctions. Working in collaboration with him, Anant Raje arranged for some pieces of terracotta folk art, especially tribal art, to be installed on the campus, mainly at two locations: next to the 'Harvard' Steps and the entrance to the kitchen-dining complex that was coming up at that time. The 'Harvard' Steps display had a collection of terracotta votive figurines from the tribal areas of north Gujarat. These include terracotta figures of horned bulls, elephants and horses. The entrance to the kitchen-dining complex was adorned with two large terracotta horses, in the style of the Ayyanar horses of south India. The institute also installed some art work in the library--a set of large applique (cloth-on-cloth) panels by Saroj Lal (an Ahmedabad-based, mill worker's wife who was supported by Haku Shah) and a phad scroll, a Pabuji painting, depicting the story of the Rajasthani folk deity, Pabuji.



59. 'Harvard' Steps, with art work (votive figures of animals) from tribal areas of Gujarat on display (in the library's shadow on the left), 1980. This picture shows the result of the shifting of the library out of the way of the 'Harvard' Steps.



60. Student mess, entrance (partially hidden by the horses) and side view, 1980. Note the two terracotta horses installed in 1978. A close up of the horses is shown below



4

BRICKS AND BRICKBATS

The story of the work of Louis I. Kahn, Balkrishna Doshi and Anant Raje, and Pranlal Patel's photographs of their work is also the story of the dominance of one building material, bricks. Whether it is present in massive blank walls, the numerous arches and curved retaining walls, or absent in the huge open circles and narrow slits between the two sets of rooms on a dorm floor, the brick has contributed to the aura of the 'Red Brick Campus'. Over the years, the 'red brick' has also entered campus discourses in various ways--the title of an early student magazine, or the 'Red Brick Summit' of later years (a student festival), or the 'Brick by Brick' permanent exhibition of the IIMA Archives. Yet, it seems that the first version of the plan, prepared in March 1963, visualized a concrete-based structure: "The building material, at this stage of the development, was to be concrete" (CW, 210). In a letter to the institute's Building Committee dated March 17, 1963, Vikram Sarabhai refers to a meeting with Kahn in the United States: "Kahn spent an afternoon with us here. The plans look magnificent, but of course there are many details to be discussed and decided with him.... Many buildings of Kahn are raised on stilts. There are also generous corridors and open spaces. This, of course, adds to the cost. My opinion is that the cost is worth undertaking for a project of this type." The letter does not say anything about the material, but the reference to stilts and higher costs seems to corroborate the cryptic note identifying the building material as "concrete".

What drove the very quick shift to an exposed brick masonry structure remains unclear. Surprisingly, the records of the Building Committee do not indicate any debate or discussion on this matter. Cement and steel were of course expensive and their supply was strictly controlled in those days. The availability of these two materials in adequate quantities and at reasonable prices, even when the brick structure had been finalized and was coming up, was a matter of concern for the managers in charge of the construction. Yet, one wishes there had been a better record of the initial choice-making processes.

While a definite statement about the reasons for the exposed brick choice cannot be made, one can hypothesize that one of the reasons may have been Kahn's encounter with the Indian subcontinent. Moshe Safdie, who worked on the IIMA project in Kahn's office, in an illuminating but very brief interview alludes to this reason (PA3, 273): "I was obsessed with prefabrication and labor-saving devices and here he was resurrecting the old labor-intensive brickwork. And I was saying, 'What are you doing? Why are you going back in

time?’ And he talked about Gandhi and he talked about the spinning mill¹² and he clearly saw it differently. He thought at that time this [i.e. labour-saving activity] was the wrong thing to do in India. At that time, I felt really critical. Later, I realized that he probably had a deeper understanding of what was achievable at the time and he accepted the fact that hundreds of laborers would be breaking stones piece by piece, or making and placing bricks, because that’s the way it is and he built accordingly.”

“That’s the way it is.” From today’s vantage point, one may look back and wonder how defensible this reading of India, even as the Nehruvian vision of building the “temples of modern India” was being realized, is. Whatever be the reasons for the choices made, the brick-based design seems to have been accepted by the institute without any reservations—unlike the proposal for the ‘lake’. Some saw in the choice of exposed brick a connection with Indian architectural traditions and even the development of a tradition of ‘world architecture’, and a closeness to an Indian lifestyle. Doshi says, “There was no doubt Lou has brought back the old technique of building in brick to the forefront.... The character and form that emerged out of this simple building strangely enough is similar to the buildings at Mandu, built during the 12th century.... This theme of brick technology, in its load-bearing-walls and brick arches for spanning a space or relieving the load from the walls above has given the campus a rhythm. It has different moods in different times of the day and different seasons. When one feels this, one understands its closeness to Indian lifestyle.”¹³

Curtis sees a similar place for Kahn’s brick in Indian architectural traditions: “Kahn’s ‘utopia’ rejected machinism in favour of an idealized, archaic past. The vocabulary of stark brick with concrete structural ties and round openings can no doubt be related to a host of Kahn’s obsessions... [but] he also responded to the abstract forms of the Jantar Mantar observatories in Delhi and Jaipur... [and] to the hydraulic engineering works with their giant sluices in the Ahmedabad architectural tradition” (PA2, 244). Raje is equally appreciative of the perceived alignment with Indian traditions: “This language instantly made connection with historic places such as Mandu, Golconda, Bider [Bidar], Bijapur on the Deccan plateau in central India where the Sultanates built some of the most magnificent buildings in the fifteenth and sixteen centuries” (PA2, 247).

An article in an IIMA magazine, *Alumnus* (May 1987), ‘Kahn’s Monastic Vision: Architecture at IIMA’, presumably written by someone from the alumni office of the institute, linked the simplicity of the brick with a certain austere dignity: “More importantly, Kahn decided to use the cheapest and most readily available indigenous

¹² The reference is possibly to the ‘charkha’ or spinning wheel.

¹³ *Alumnus*, Vol. 19, Issue 2, 1987, p.6.

materials--bricks--which require little maintenance. Unadorned by plaster and paint and with the use of simple materials, like Kotah stone slabs for flooring, wooden panels on doors and windows and reinforced concrete slabs, Kahn's design is one of austere dignity" (p.9). Raje shows similar enthusiasm for the role of brick: "The nature of the material that governed the construction in brick generated arches, pilasters, buttresses.... Walls brought about a composite order with concrete for frames and restraining members used for tie--a new architectural language that recognized craftsmanship" (PA2, 247).

Srivastava (doctoral dissertation titled 'Encountering materials in architectural production: The case of Kahn and brick at IIM', University of Adelaide, 2009), drawing on the work of the French philosopher and sociologist Latour, points out that the brick's agency in a dialogue in which both Kahn and the brick are 'actants'--the term includes a material entity seen as an actor--must be appreciated to understand the essence of the brick architecture of the IIMA campus; he considers the construction of the demonstration arch as a critical moment in the establishment of the dialogue between Kahn and the brick. Kahn himself alluded to the possible agentic role that brick played in design, with the references in his talks to the questions one might pose to a brick on its suitability for the famous segmental arches that IIMA buildings are known for.

In a 1973 lecture at the Pratt Institute, Kahn spoke evocatively about the arch (ET, 271): "If you think of brick...you consider the nature of brick. You ask the brick, 'What do you want, brick?' And the brick says to you, 'I like an arch.' And you say to brick, 'Look, I want one too, but arches are expensive and I can use a concrete lintel over you, over an opening.' And then you say, 'What do you think of that, brick?' Brick says, 'I like an arch.' The brick's obstinacy may sound contrived, but it does indicate the reverence that Kahn had for brick: "It's important... that you honor the material that you use.... You honor and glorify the brick instead of just shortchanging it or giving it an inferior job to do, where it loses its character.... Brick is a beautiful material and it has done beautiful work in many places; it still does because it's a completely live material. In three-quarters of the world the brick is the only logical material to use because concrete is a highly sophisticated material and not as readily available as you think."

Kahn was particularly proud of his 'composite brick and concrete order'. In a lecture to the Boston Society of Architects, he says, "I want to introduce to you an idea here. This is a brick and concrete composite order. It is a composite order in which the brick and the concrete are acting together not only in the floors but I am also making flat arches which are restrained by concrete members" (ET, 215). Wiseman acknowledges the innovative nature of this solution: "Not the least of Kahn's innovations in Ahmedabad were the concrete ties that he used repeatedly to support the shallow arches above openings in

both the main buildings and the residential quarters. Technically, they were necessary, but the aesthetic element was also important: The expressed triangular ‘ears’ at the ends of the ties were added to resolve the forces at the joint, ‘hooking’ the bricks on both sides together, and adding an ornamental touch in the process” (BTS, 150).

Kries (PA1, 12) relates the brick design to a transcendence of a particular western Modernism into something more universal that draws on local traditions and the environment. “His architecture overcame the dominance of European and American influence in Modernism, in favor of an approach that seems to have anticipated the globalized worlds in which we now live. Anyone who has stood in front of the rough masonry walls of Kahn’s Indian Institute of Management in Ahmedabad comprehends the meaning of this. For the first time, modern architecture was not simply exported, but derived from the local environment. The strangely timeless, fortress-like quality of Kahn’s buildings in Ahmedabad and Dhaka are more reminiscent of world architecture than of Western Modernism.”

But the humble Ahmedabad brick did not seem to care for this extolling of its virtues. Problems with the brick began to surface very soon, and by the early 1980s these were being discussed. Kahn no doubt appreciated local architectural traditions (including traditions involving brick), but he also had reservations about extant local brickwork skills. In a lecture to the Boston Society of Architects in 1966, Kahn said, “And there are quite a number of experiments that I had to make because the attitude to brickwork was very low in India. It is really a mud attitude; it was mud to begin with and had to end up so” (ET, 217). This scathing comment on a matter related to a critical building material makes one wonder how seriously Kahn took his own negative reading of the local brickwork skills--bricks were made on site, and the masons did have some problems (see the story of the demonstration arch). But others, in later years, were openly critical of the relatively little attention paid to this issue.

In a 1987 interview carried in the issue of *Alumnus* referred to earlier, Kulbhushan Jain and Mina Jain, who had been students of Kahn and had worked with him in his office, seemed to indicate that the best-laid plans could be undone by something as simple but critical as the suitability of the bricks used. This “material is going to cause a lot of problems in future because the sand content in this brick is very high and it will start disintegrating within a few years. Louis Kahn took it for granted that the quality of the brick would be good. It must not have occurred to him at all that there could be bad quality brick because if you compare this with the brick he had been using in America, then there is absolutely no comparison. Besides, Kahn did not anticipate that the construction could be poor and there would be water penetration into the walls causing the steel to rust, as some of

these walls are reinforced steel walls. In our climate these things do not work. Soon the concrete will start chipping and falling, and bricks disintegrating and things will become so difficult that you would not know how to repair the Institute building. In a few years the Institute might have to take a decision to plaster the whole building inside out and the whole brick facade might be lost” (p.10).

The quality of the bricks no doubt contributed to the fairly rapid deterioration of the buildings. But there was another critical factor that the quotation in the previous paragraph refers to: the reinforcement in the masonry. The genesis of this factor lies in the first formal Indian Seismic Code (IS 1893) issued in 1962. Ahmedabad lies in a geographical zone that is subject to ‘moderate damage risk’. While the very early buildings on campus did not have to take into account the guidelines, the later buildings, including the main complex, and especially those with large walls, had to be structurally reinforced. When Kahn did not agree to an initial proposal to transfer the load from the masonry to a reinforced concrete frame incorporated into the masonry, the engineering response was ‘reinforced masonry’. This meant inserting steel rods into the brickwork. Anant Raje proposed five solutions, the simplest and cheapest being minimal reinforcement horizontally and vertically. The more complex ones involved the use of cement and concrete. Rampazzo¹⁴ indicates that Kahn preferred the complex solution, but, surprisingly, approved the simplest solution, possibly because anything else would have meant higher costs and further delays. Her work is evocatively titled ‘Steel like Straw’, a phrase borrowed from Kahn’s letter to Raje justifying this choice--Kahn was referring to the role that straw or other vegetable fibres played as a structuring additive in tradition plasters; in other words, the structure remained a brick and binder structure, with a minor additive. (See this work for a detailed discussion of this crucial choice, and how the combination of brick, which suffered from various deficiencies, and the steel reinforcement--to comply with the earthquake safety code or for structural reasons as in the arches--became a ‘deadly’ combination.)

This monograph does not address the institute’s responses to the problems as they developed--that must be the subject matter of another study. For our purposes here, it is sufficient to note that though the problems had been highlighted in July 1982, the institute did not realize the seriousness of the underlying problems with the material for a long time. In 1991 there was an effort to redress some issues, and by 1996 there was an acknowledgement that the reinforced masonry may have become problematic. A commissioned report presented in two parts (1998 and 2000) made a detailed assessment

¹⁴Rampazzo, Alessandra. (2021). *Steel like Straw: Louis I. Kahn and the Indian Institute of Management at Ahmedabad*. SAGGI IUAU 01 book series, digital version (December 2021). Venice: Università Iuav di Venezia. This book discusses the pros and cons of the technical choices that Kahn, the associated architects and engineers, and other stakeholders made. It provides an explanation of why the buildings started to show serious problems soon after their construction.

of the problems. The earthquake that shook Ahmedabad on January 26, 2001 accentuated the problems. In addition, some of the steps taken in the name of periodic repairs may not have been appropriate. Finally, the situation became so serious that a restoration/renovation plan had to be developed. There was an initial assessment by an international firm (Inskip Gee Architects) in early 2014. This was followed by the renovation of the library (with financial support from the TCS Foundation) and one of the dorms (Dorm 15) by Somaya & Kalappa Consultants, in 2017-18. The institute's tentative proposals to examine alternatives to restoration such as rebuilding the structures evoked strong negative reactions, forcing the institute to reconsider its options. But a structural audit of the restored structures carried out by a team from IIT Roorkee (September 2021) revealed the persistence of the old problems. The institute asked an international team of architects and engineers to review all the investigations and analyses that had been carried out and the plans for restoration. IIT Roorkee did another study of the structural status of the remaining dormitories. To cut a long story short, the results of all these studies led the institute to conclude that restoration was not a viable pathway for the future. Finally, in 2022, it decided to reconstruct many of the buildings on the Main Campus. It made a public announcement on November 3, 2022 and it is worth reproducing this in full [with very minor editing], since it indicates the efforts that had been put in over many years, especially over the last four years, to balance the legacy of Kahn and the architects who worked with him, and the need to have safe and usable buildings.

The Institute takes pride [in] its antecedents and rich legacy, including the iconic architecture, which were pivotal in its growth into a premier world-class institution. However, over time, some of the buildings have been facing structural damage, deterioration and have become uninhabitable, posing a safety concern for the campus's residents. Discussions and consultations on this matter, inclusive of nationally and globally recognized expert-led reports, have been on for almost 40 years and especially extensively over the last two decades. The deterioration of the structures was raised first at a Building Committee meeting in July 1982. Repairs were carried out whenever subject matter experts recommended them or there was a visible indication of a problem. The safety of our students and employees is paramount, and with that in mind, the Board felt there was a need to address this issue rather than opt for temporary solutions such as restorations, which had been attempted previously, but were not as effective. The reports indicate that most structural elements have insignificant residual life, and thus restoration will be technically impractical and ineffective despite investment of time, effort, and funds. Therefore, rebuilding these sections is unavoidable. The Institute will not continue with any further restoration of the faculty blocks, classroom complex, and dorms other than D15. After careful consideration, a process will be initiated later for the reconstruction of the faculty blocks, classroom complex, and the peripheral dorms 16 to 18 with the same exterior façade, a seismically safe structure, and non-major renovation of the internal space to improve its functionality to suit the needs of the users. The other dorms will be remodelled,

in line with the Louis Kahn heritage and keeping in mind the functional needs of current and future residents of the campus. Most importantly, the Board considered all relevant reports, especially the ones that were undertaken in the last year. This included meetings and presentations by two groups of experts who were tasked with the assessment of the conditions and structural status of the buildings and who visited the campus to conduct a study first-hand. The first was a group of structural and earthquake engineers from IIT Roorkee and the second, an international group comprising restoration experts, architects, and structural engineers. Given all these considerations, the Board has taken this decision that seeks to retain the core elements while giving the institution infrastructure that is structurally safe and amenable for future growth and needs. The Board finalised the decision on this matter after considering the process of consultations it had initiated prior to December 2020.

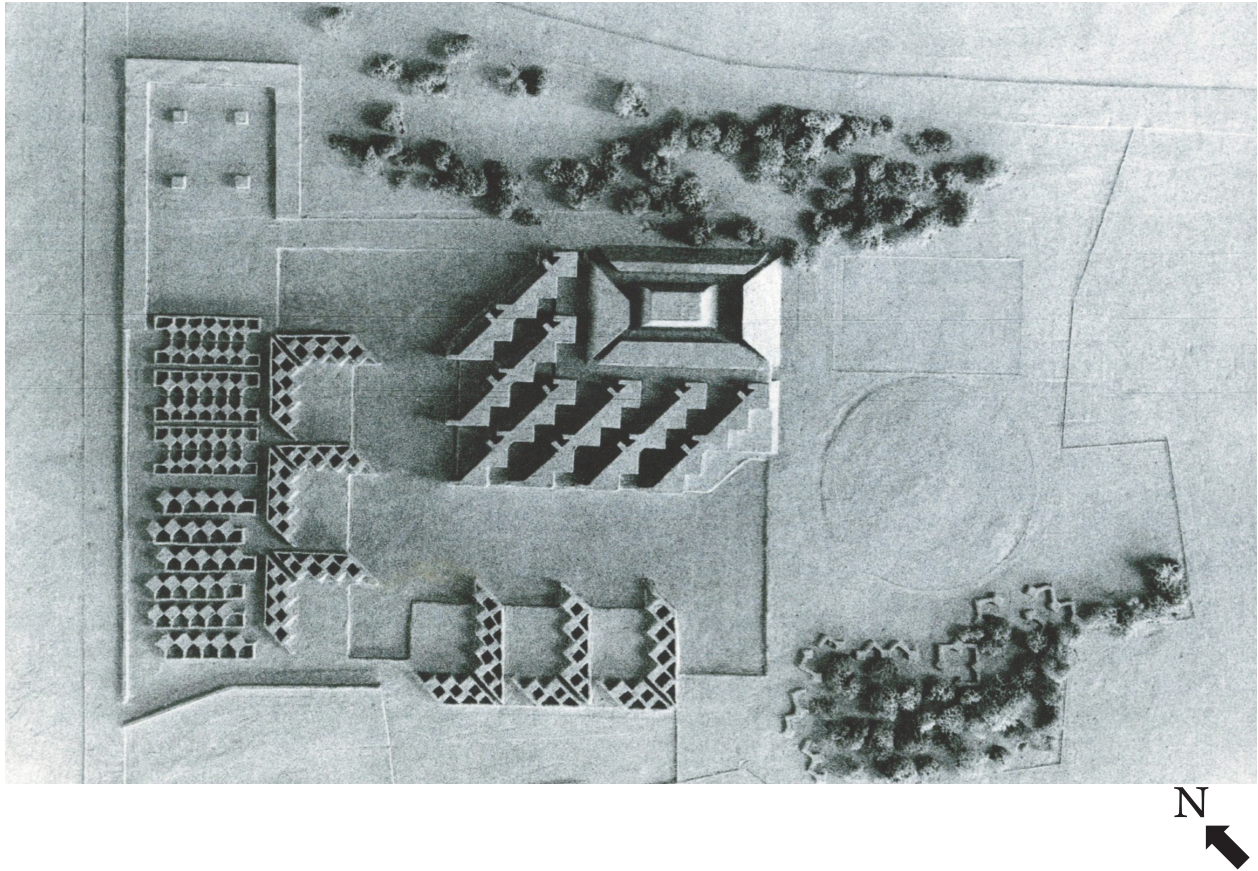
This decision marks an inflection point in the history of the ‘Old’ Campus at IIMA. The stage is set for a new beginning--for a journey that is expected to create a new idiom that is true to the legacy of Louis Kahn and will, at the same time, accommodate the future needs of the institute. The new order that will take shape over the next few years, one hopes, will set fresh standards of excellence for the coming decades, just as the old one did six decades ago.

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Appendix

Site Model, IIMA Campus, March 1963



Site model photograph reproduced with permission: Buildings, 1962-1963. Indian Institute of Management, Ahmedabad records, Box 2, Folder 8, HBS Archives, Baker Library, Harvard Business School.

This is a plan view of the site model that was prepared in Louis Kahn's office in March 1963. (See Figure 2.1 for details of the structures represented in this model.) It is based on the first version of the design prepared for the IIMA campus. At top left is the square marketplace that was later shifted to the eastern corner, but never realized. The total number of staff housing units (left and bottom) is 110, excluding 23 S-type (servants' quarters) that are clustered at the southern end. The model shows the mango trees that seem to be mixed up with these houses. The committee in charge of the campus construction did not like this. In a meeting on August 2, 1963, that was also attended by Kahn, the committee noted the following: "Peons' Quarters are provided near the mango grove in the Institute land. In order to preserve the beauty of this area, these should be shifted to some alternative site." This was done and these quarters were shifted to the left, along the south-western boundary of the site. The mango trees disappeared in later years.

The trees shown on the north-eastern boundary are primarily mango trees. The main entrance is not shown here, but it was planned to be placed somewhere in the middle of this boundary of the campus. The six rows of dormitories (and the houses) are oriented north to south. The main complex in the middle shows a centrally located library, with the classrooms at the bottom, the administrative offices at the top, the kitchen-dining hall to the left, and an amphitheatre arrangement to the right. The circle to the right of the dormitories indicates a 'sports' area.



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